April 1986 No. 49

98p

sinclair user

BRITAIN'S BEST SELLING COMPUTER MAGAZINE

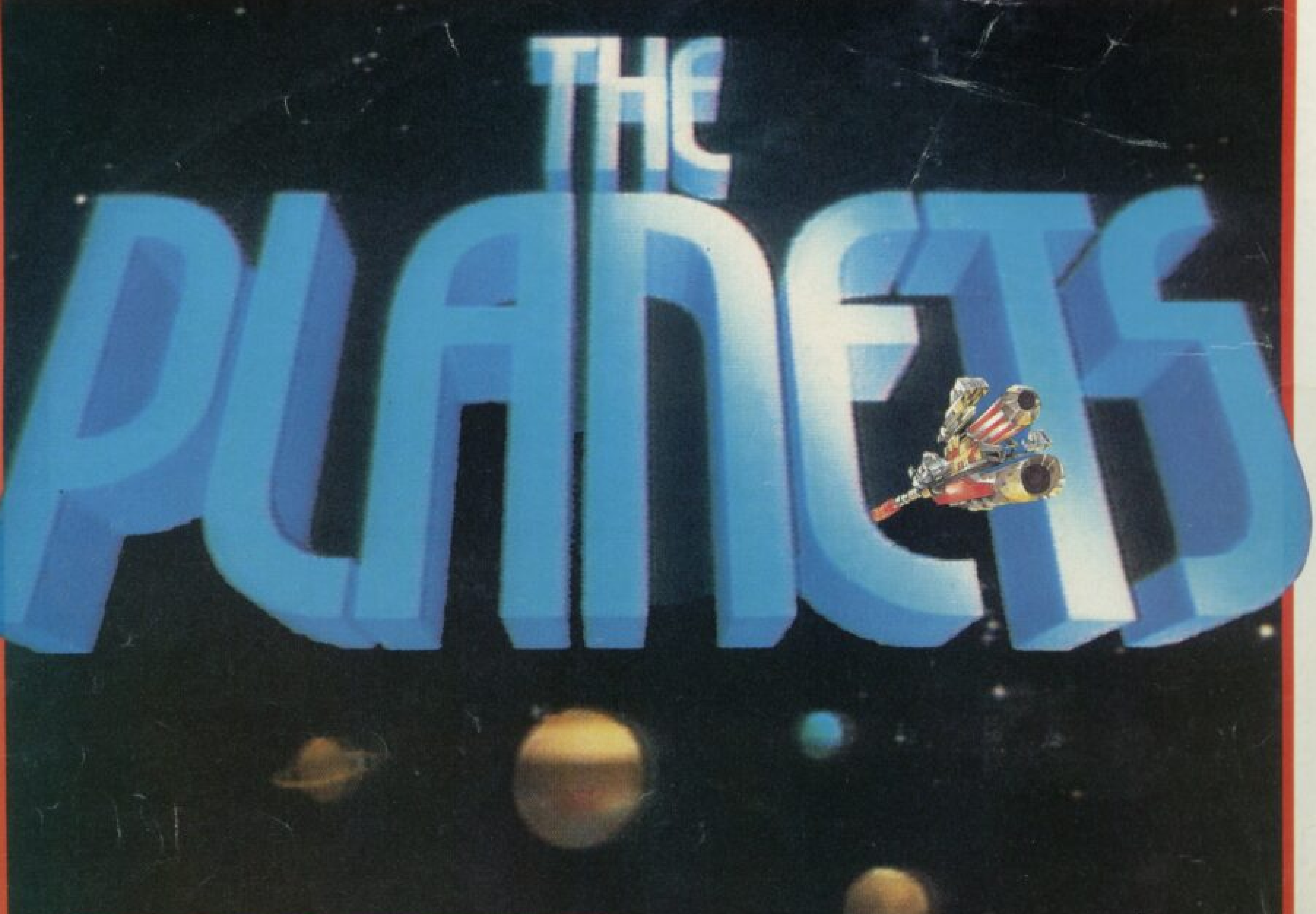


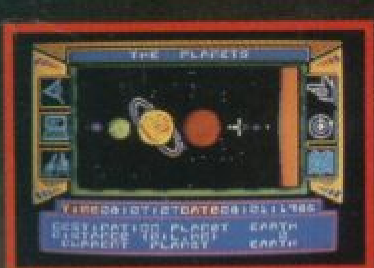
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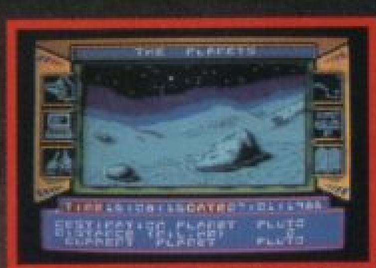
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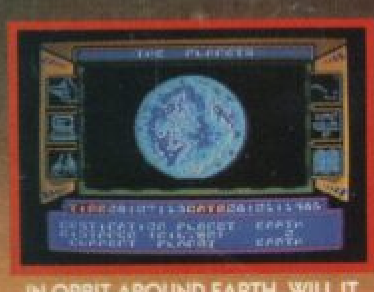




LONG RANGE MAP FOR DESTINATION SELECT.



VIEW FROM WINDOW OF THE SURFACE OF PLUTO



IN ORBIT AROUND EARTH. WILL IT SURVIVE?



AN ALIEN GAME – BUT WHAT DOES IT MEAN?

The Year is 2007. Life on planet Earth is coming to an end. A series of monumental natural disasters has thrown the Earth's climate into a deadly spiral – a second Ice Age has already begun. The skies are black with volcanic dust. Massive earthquakes hamper the world's futile attempts to cope with the changing environment. All seems doomed. Into this darkening chaos an Alien life force makes its presence known. A metal capsule plummets unscathed through the atmosphere. It contains a map of the Solar System and shows the position of eight similar capsules, one for each of the Earth's planetary neighbours, Mercury, Venus, Mars, Jupiter, Saturn, Neptune, Uranus and Pluto.

A radio signal is received from deep space. When decoded it is found to be a computer program. The program is loaded into a suitable microcomputer. A strange game unfolds which appears to obey certain complex rules – but there are no instructions or explanations. It is obviously of great significance, but what does it mean?

A spacecraft is prepared in a desperate bid to reach the eight remaining capsules. You are selected as its pilot. The hopes of the world go with you.

This outstanding program is much more than a game. Using stunning state of the art graphics and the latest programming techniques, the Solar System in all its power and mystery will unfold before your eyes. Heather Couper, President of the British Astronomical Association has been fully involved in its computerised creation to make sure that everything is as accurate and up-to-date as possible. Even the results of Voyager 2's recent encounter with Uranus have been incorporated into the design of that cold and inhospitable world.

And yet it is a game, and a very challenging one at that. The Solar System, the strange alien game, the eight mysterious capsules are all interconnected. Together they hold the key to survival of life on Earth.

For those able to reach all eight capsules and make sense of all that they find – there are prizes to be claimed, but for all who attempt this exciting quest, the journey itself will prove more than worthwhile.

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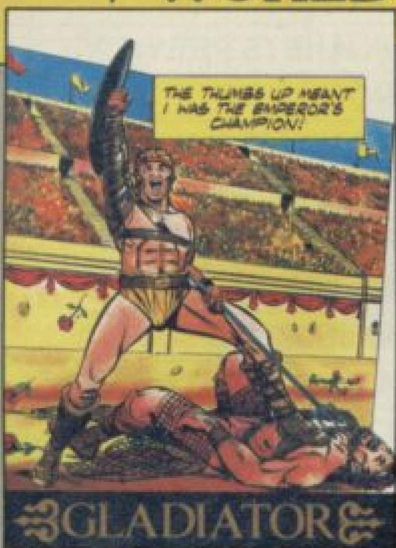
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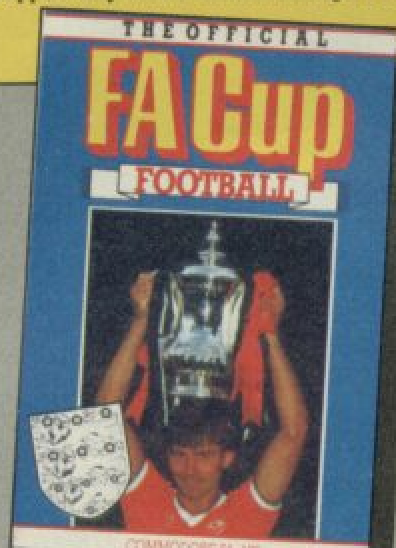


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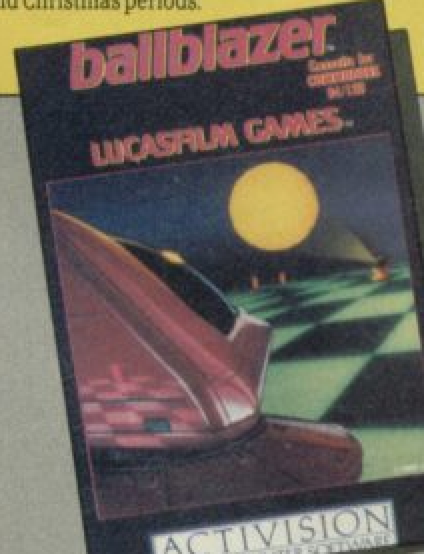
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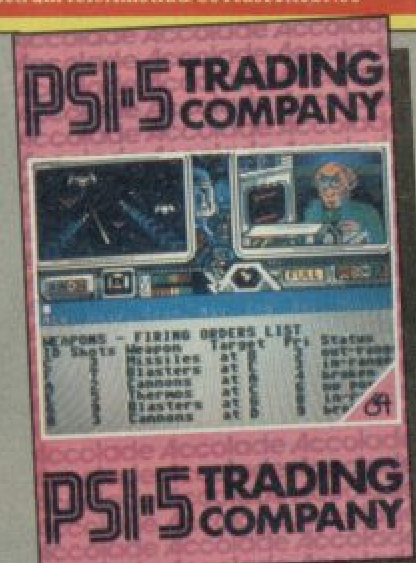
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Friday 13th



The Planets



Animator 1

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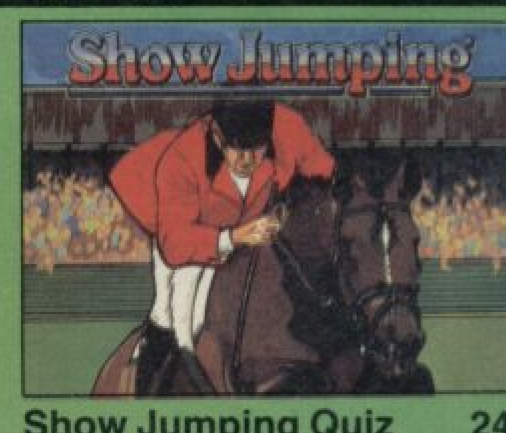
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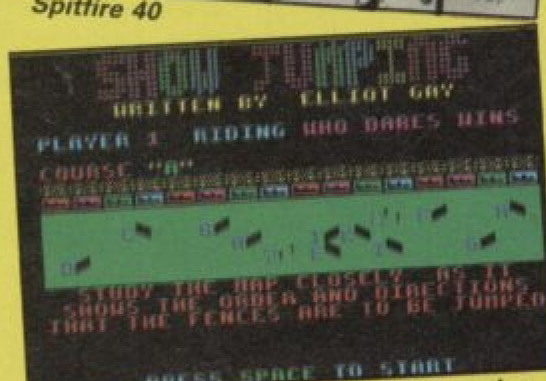


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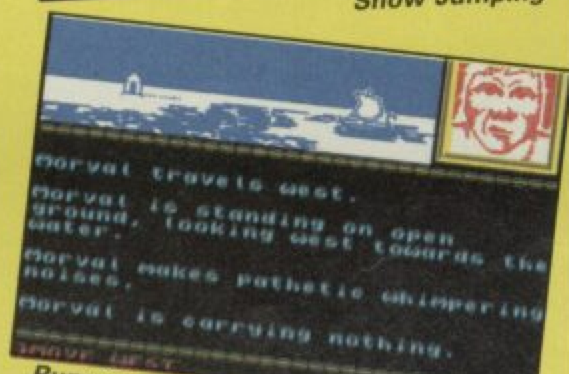


Benny Hill


Spitfire 40



Show Jumping



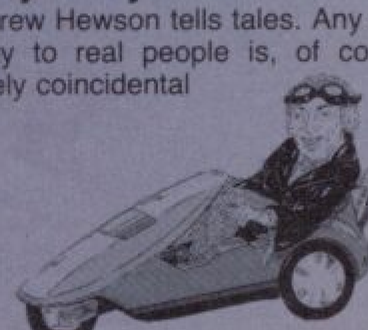
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Clive: "no compromise" on Pandora

Pandora — autumn launch

PANDORA, the Sinclair portable computer, is due for launch in the autumn according to Sir Clive Sinclair.

He confirmed that the new take-it-anywhere machine would be based on eight-bit technology which, he believes "will continue to dominate the computer market for a long time. There will be no compromise on price. It will be a truly portable machine, light weight and battery driven." Let's hope it's not powered by those flat Polaroid batteries which are so hard to get hold of.

The Pandora will have an integral flat screen display, similar to that used in the Timex pocket television. Sources close to Sinclair say that it will be four times the size of the current screen in order that the text characters can be read. Sir Clive says "It will not have a liquid crystal display and you will be able to read it in most lighting conditions".

The machine is likely to have 128K RAM which will be banked-switched in a similar way to that of the Spectrum 128. Sir Clive suggested that the operating system will be CP/M-like. If that was the case Sinclair would have to use CP/M Plus which has been implemented on the Amstrad PCW8256. It utilises bank switching but, because of the way it is implemented, is not downwardly compatible with CP/M packages written on earlier versions of the operating system.

Sir Clive would say nothing about the proposed storage medium for the machine. Sir Clive's silicon wafer drive, which is still eagerly anticipated, with its half-megabyte memory could be used but a more likely alternative is a light weight 3.5in disc drive. The microdrives — QL or ZX — would prove almost hopeless as far as CP/M memory requirements, response time and reliability are concerned.

The back-up medium could even be a simple tape recorder. Sir Clive has stated that all 48K Spectrum software will be comptible with Pandora but we've seen few Spectrum game programs on disc.

No price has been put on the machine yet but it is expected to cost within the range of £250-350.

Incompatible Elite

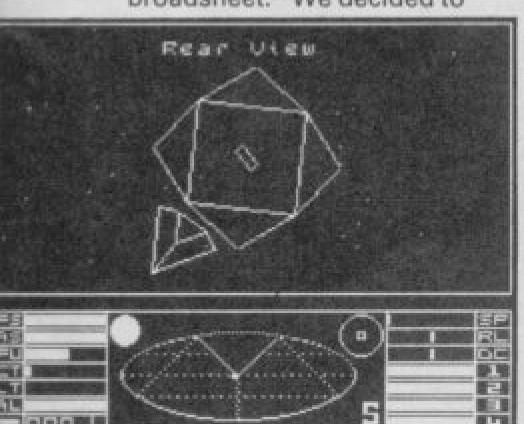
WARNING! The 48K version of **Elite** from Firebird is not compatible with the 128, although it is mentioned in the broadsheet included in the package.

Andy Knott, a spokesman for Sinclair, admits "The inclusion of a title on the broadsheet does not mean that the old 48K version will necessarily run on the 128, though it probably will".

Sinclair declares that **Elite**'s inclusion was a mistake but, according to Phil Pratt of Firebird, a special 128 version of the game will soon be available. "Anyone who owns a 128 and buys the 48K version of **Elite** will get a 128 version if they send the 48K one back to us".

Confusion surrounds the reasons for the mistake but the game appears to have been tested on a Spanish 128 which has a different ROM to that of the British machine.

Alison Maguire, marketing manager of Sinclair Research, was disturbed to hear of the error and stated that Sinclair has now investigated compatibility of products on the broadsheet. "We decided to



ring around the whole lot of them (software publishers) and most have confirmed that the existing product will run on the 128."

The company states that all software designed within its specification guidelines will be compatible but there may still be programs out there which don't work with the machine. We will warn you if that is the case in our reviews, but if you discover an incompatible game or utility — let us know.

Tardy Tardis



DR WHO, from Micro Power, is due to materialise in the high street later this month.

The reason for the delay of the program, which was due out last year, is that the programmer originally doing the coding had to work on other versions of the game. Bob Simpson (above) managing director of Micro Power, explains: 'We have put our top programmer on **Dr Who** and it should be ready by April."

Those who have kept faith will be able to buy the game for £11.95, a lower price than originally stated. Simpson says: "We were going to launch it at £14.95 but now feel that the price might be a bit over the top for Spectrum owners."

128 is selling well

THE 128 has proved popular with most sections of the industry according to Sinclair's only product distributor, Terry Blood Distribution.

Norman Smith, managing director of the company, says: "We see it as a new machine, with a brand new board and a brand new specification. Sinclair has also taken some user requirements into consideration, such as better graphics and noise reproduction. Sinclair Research seems to be a better educated company that it once was.

"Although it's too early to tell how well the machine is doing, we've had no returns and for a new machine that's a good sign. If the standard of the 128 had been introduced with the Plus I'm sure we would have eliminated 50 per cent of returns.

Retailers are also enthusiastic about the new machine. Martin Craswell, a representative of W H Smith, says: "It's early days yet but people will always be interested in a new product. We've had a lot of people through the doors who wanted to look at the machine and it is in about 40 of our bigger stores".

Craswell was surprised to learn of the potential incompatibility of certain 48K programs with the 128 (see separate story). "The only problem with **Elite** that I know of is the bug in the Amstrad version. I haven't heard of any returns".

You can judge whether the 128 is everything your friends are saying about it. Just turn to our special 128 supplement and read about the launch and the software available.

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Modem muddle on the 128

THE NEW Spectrum 128 is causing all sorts of problems to those who want to use existing peripherals with the new machine. In the absence of a definitive list of what is, and is not, compatible, here are a few rules of thumb to follow.

If a peripheral uses ROM calls or has a power supply of its own, such as printer interfaces in the first case or disc drive systems in the second, it's most unlikely to work. Stuff that simply reads the keyboard, such as joystick interfaces, ought to be OK — but nothing is guaranteed.

Sinclair User has received a number of enquiries as to the compatibility of the VTX5000 modem, which gives access to Prestel and Micronet 800. The short answer is no, but it is actually possible to use the VTX5000 with a Spectrum 128 provided that you already have a 48K Spectrum, or are prepared to undertake hardware modifications.

Instructions on how to fix your modem up for Micronet are available on page 800001341 of Micronet, but that involves the soldering iron. If you already have a 48K Spectrum you could transfer the software that the modem dumps into the Spectrum to tape — SAVE "VTX" and SAVE "VTX" CODE 30000, 65536–30000 and then reload the software into the 128 after going into 48K mode. In that case you may see several multicoloured crashes before you get the normal loading screen — our resident hacker reckons these won't damage the 128 but continual resetting with short intervals between each reset will.

Sinclair Research points out that "anybody using the modem without BT approval runs a serious risk of prosecution. In the event of the Spectrum 128 being damaged, the guarantee would be void."

In fact, it's most unlikely you would be prosecuted, although anybody using 'unofficial' modems may have them confiscated if they're foolish enough to leave the system lying around when a BT engineer comes to call. The guarantee threat is worth thinking about, though.

Meanwhile, the best advice is probably to leave well alone and wait for a proper modem to be developed. Micronet is currently talking to several companies about the production of such a modem, which would only require minor changes to the VTX5000 system to operate perfectly. If you want to fiddle around in the meantime, on your own heads be it!

C5 takes to the skies

SIR CLIVE SINCLAIR is planning to launch a microlite aircraft later this year, powered by electricity.

The entire project has been kept under wraps for some time, but sources at the secret Winchester research plant confirm that the revolutionary plane will use technology developed during work on the C5 electric tricycle.

The machine will use a modified version of the C5 motor, driving two rear-mounted propellors. A heavy duty cable will transmit the power to the propellors, delivering a maximum airspeed of up to 25mph.

Initial models will be single-seater only, and may require a tow when taking off from level ground to deliver an initial thrust to the engine. The batteries will provide about 15 minutes worth of level flight in appropriate weather conditions, but Sinclair Research is understood to be investigating the possibilities of air-to-air recharging.

The machine should cost somewhere in the region of £799.95 and Sir Clive is expected to make an announcement concerning its availability some time in the first week of April. The product is to be aimed at the urban commuter market.

Although no official statement has yet been made, the British Safety Council has already expressed concern. A spokesman said, "We utterly condemn this extremely hazardous machine. Sir Clive seems to have his head in the clouds." London Regional Transport is also said to be preparing a report on the feasibility of using bus lanes as emergency landing strips, one of the major planks of Sinclair Aviation's marketing strategy.

Hewson shoot 'em up

HOT ON the heels of the **Technician Ted Mega-Mix** Hewson is about to launch **Quazatron**, a shoot 'em up by the author of the Seiddab games.

Your Meknotech robot must battle with the battle droids and repair mobiles of Quazatron, the mechanised subterranean city.

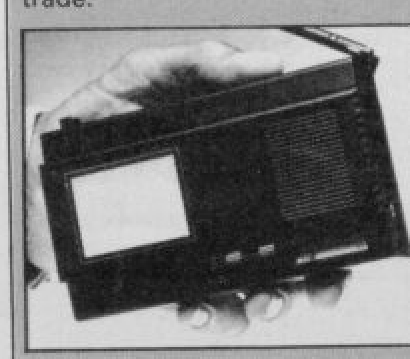
The program, which was formerly titled Ziggurat, will be available for the Spectrum and 128 from April 28.

Pocket TV price drop

TIMEX has taken over the worldwide marketing of the Sinclair flat screen television but Sinclair has not relinquished all rights to the product.

The move heralds both a price drop of £20, making the pocket television £79.95, and a rigorous sales campaign in stores such as Dixons.

Sinclair intends to use his flat screen technology in the Pandora so it is sensible for him not to give all rights to Timex. The deal can be seen as yet another way in which Sinclair can pay off his remaining debts to Timex while continuing to trade.



Filling the screen

EUREKA! I have found it and I can have it any size on the screen, thanks to Domark's new wonder monitor for the 128.



It contains two unusual features. The first is that you can alter the size of the central screen display, to fill the screen with animated action and without the usual Spectrum border display. You can also switch from medium resolution colour to a high resolution green screen display.

Unlike other monitors the Eureka! has a sound amplifier which takes advantage of the 128's music capabilities. The monitor supplies the 128 with power through the computer's edge connector. In that way the need for more than two leads — computer and tape recorder — is eliminated.

Domark hopes that the Eureka! will cost less than £250 but has yet to set a price.

Sinclair — looking good

THE financial disaster which threatened Sinclair Research is over for the present, according to Sir Clive Sinclair.

He stresses that no company can boast that it is completely free of monetary problems but his current worries appear to be over. "We have paid off £10 million, that's over half of what we owe."

Sinclair's close brush with receivership occurred because over-zealous retailers bought too many computers for the Christmas of 1984. They were not able to sell stocks and, Sinclair was not able to sell any more of its machines until stocks were depleted.

Fortunately creditors such as the city banks and manufacturer Timex were willing to receive back payments according to a financial plan implemented in September 1985.

Sir Clive is confident that "we will be able to announce a profit for the year beginning April 1 1986".

► 10



Beegles zee hero

"AAH! Zee faymous Beegles," smirks arch-villain von Stahlein. Aah, zee faymous movie spin-off, groans the cynical computer games player.

Yes, Mirrorsoft has come up with the rather splendid wheeze of basing an arcade game on the soon-to-be-released film *Biggles — the Untold Story*. And, as is the way with such things, the game bears only the slightest resemblance to the source material.

Which is probably just as well, because the movie is a horrendous mishmash of war film and the time travel hokum which would have author Capt W E Johns doing aerial stunts in his grave.

The setting is supposedly the Western Front in 1917, interspersed with leaps to London, 1986, the time in which Biggles' time-twin Jim Ferguson lives. Jim jets back and forth across the years, helping out ace pilot James Bigglesworth whenever he is in a spot of bother.

Nasty German secret weapons, nuns, helicopters and caves all form part of the ludicrous plot. The attention to detail leaves the mind biggling — sorry, boggling. Our hero's Sopwith Camel is actually a not-so-cunningly disguised Tiger Moth training aircraft.

But enough of the film. **Biggles — the Complete Game,** as yet unfinished, sounds marginally more interesting, as it features random flips through time from one arcade sequence to another, whenever you're in danger of losing a life. The sections include a search through subterranean caves and a dogfight between von Stahlein's bi-plane and a police helicopter.

Mirrorsoft plans to unleash Beegles in May for £9.95.

The cost of MUD

MULTI-USER Dungeon, British Telecom's modem-linked adventure game, is on line for paying customers.

Until recently, players have been using the system free of charge because BT has been testing **MUD** for bugs. A spokesman for New Information Services, the division of BT running the game, says "I'm now confident enough to start charging players for turns in the game".

To join **MUD** you must have a modem — to connect you with other players over the 'phone lines — and a **MUD** pack.

The pack contains an identity code and instructions for play, together with three hours of playing time. After that players are charged £2.00 an hour. It can be obtained by ringing the **MUD** Line on (01) 606 1173.

Alive and kicking

BLAST compiler publisher OCS has gone into liquidation but OCP Software, producer of **Word Manager** and former publisher of **Art Studio** is still very much alive.

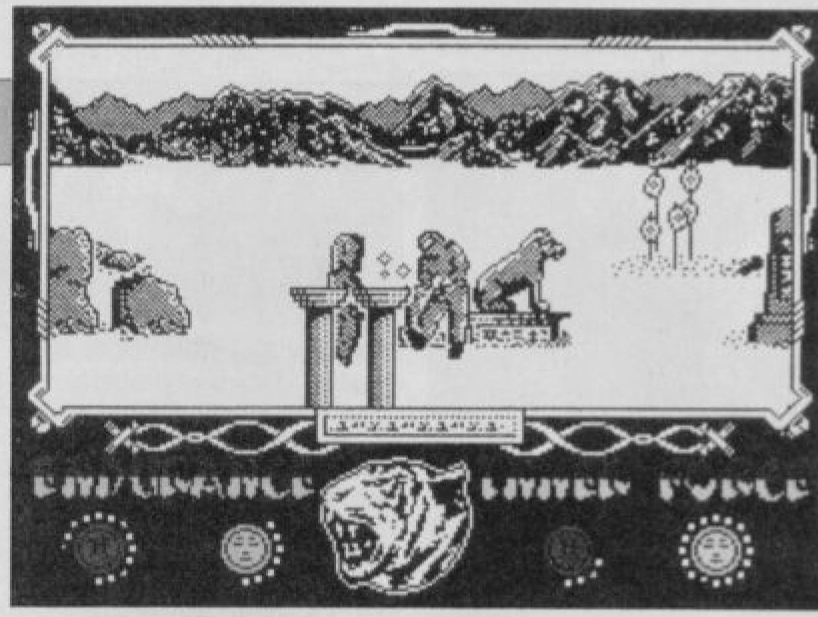
The company has asked us to point out to readers that Oxford Computer Publications has nothing to do with Oxford Computer Systems. Bruce Everiss, a spokesman for OCP, foamed "We've had numerous enquiries asking whether we've gone bankrupt and if we're still selling our products. We are, in fact doing rather well and hope to continue to do so".

Competition for Quill

THE **Graphics Adventure Creator,** from Incentive Software, is set to take on the mighty **Quill** from Gilsoft.

The package, which is compatible with the Plus and 128, will create adventures which allow full sentence input — instead of just verb/noun — full word-length recognition, and text compression, so that games can be large and sophisticated. It also includes a flexible graphics designer.

GAC will be available from May 1 and the price has yet to be set.



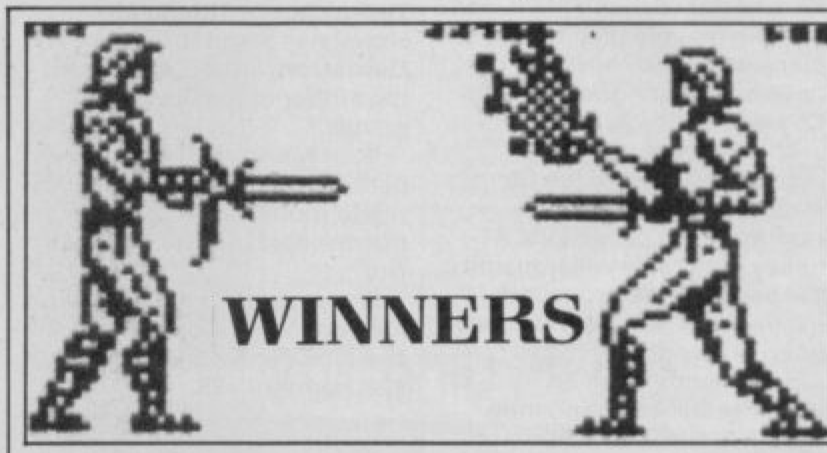
More martial arts

TRAIN to be a master of the martial arts in **The Way of the Tiger,** the first in a series of Gremlin Graphics games, based on the Fighting Fantasy books published by Hodder and Stoughton.

You are taken into the guardianship of Naijishi, Grandmaster of the Dawn, who gives you guidance and training in the nirvana state of goodness called Kwon.

The three stages of the game are unarmed combat, pole fighting and Samurai sword fighting. Why anyone would want to reach such a peaceful exhalted state just to bash the hell out of your opponent with a Samurai sword is anyone's guess.

The Spectrum version, which looks similar to **Way of the Exploding Fist** from Melbourne House, costs £9.95.



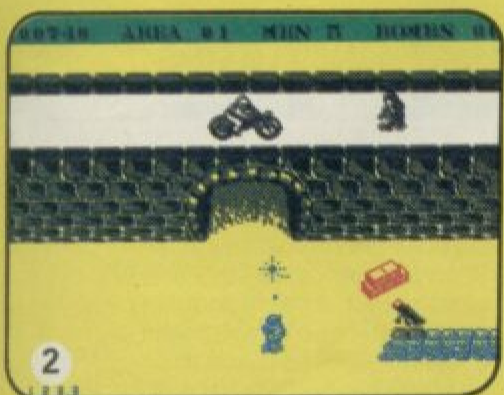
IN THE **Gladiator** competition which appeared in the March issue of *Sinclair User,* a Wilkinson Sword was the first prize. Kenneth Russell of Darvel, Ayrshire had a stab at the answers and came up with the correct solution of 1A, 2B, 3B, 4C, 5A.

There were 20 second prizes of a Domark T-shirt and a voucher won by: A Burrows, Crewe, Cheshire, Michael John Brannigan, Colby Newham, Middlesborough; Nicholas France, Helens Bay, County Down; Michael Raunkjaer, Denmark; Kevin MacPherson, Dufftown, Bardfshire; R A Maddock, Worthing, Sussex; Matthew Eva, Wickford Essex; Tony Price, Gorton, Manchester; Mr S Stacey, Enfield, Middlesex; James P Taylor, Stoke Mandeville, Buckinghamshire; P Kitchen, Hull, Humberside; Lee Phillips, Pewdeford, Wolverhampton; Glen Asquith, Benrhdding Ukley, West Yorkshire; Richard Coombes, Shareshill, Wolverhampton; Marcus Fernando, Chelmsford, Essex; Jose Francisco Antimes, Portugal; Danyal Conn, Palmers Green, London N13 4JJ; Richard Wallace, Hexham, Northumberland; James Knight, London SW19; Mr R Tilleray, Banstead, Surrey;

The following 30 runners-up each receive a voucher only: Matthew Baines, Liversedge, West Yorkshire; N P Fabbri, Forest Hill, London SE23; Russell Speight, Chapel Park Estate, Newcastle-upon-Tyne; Andrew Douglas, Stanley, County Durham; Daniel J Barry, Hatfield, Hertfordshire; Mr A Jobber, Tadworth, Surrey; Mr H R Collings, Aldershot, Hampshire; Mr David Lord, Blucher, Newcastle-upon-Tyne; P Rodgers, Danesmoor, Chesterfield; W H Grahmans, Belgium; Mr S Spyve, Conisborough, Doncaster; John Amey, Wirral, Merseyside; Martin Hulston, Gatley, Cheadle; Simon Jackson, Cannock, Staffordshire; Sqn Ldr J L Merriman, BFPO 40; Jeremy Walker, Salisbury, Wiltshire; Barry Davis, Pakenham, Bury St Edmunds; Keith Wallace, Sheffield, Peter A Todd, London NW8; David Middleton, Corston, Wiltshire; David Tyler, Wallasey, Merseyside; Richard Davenport, Gawsworth, Macclesfield; Alan Haigh, Peterhead, Aberdeenshire; Nick Flowers, Hailsham, East Sussex; David Duggan, Grimsby, South Humberside; Mr C S Evans, BFPO 45; Karl McAteer, Finglas South, Dublin; C McGowan, Hull, North Humberside; Martin Browell, Alnwick, Northumberland; S Griffiths, Smallbride, Rochdale.

GALLUP TOP 30 CHARTS







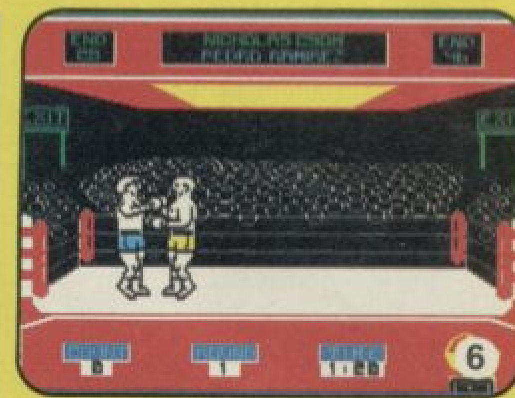




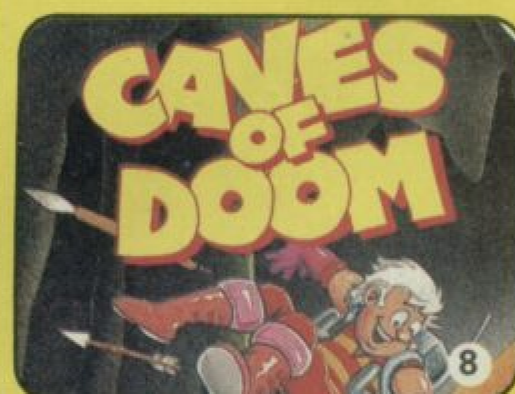
1	WINTER GAMES	EPYX/US GOLD
2	COMMANDO	ELITE
3	SPELLBOUND	MASTERTRONIC
4	RAMBO	OCEAN
5	MOVIE	IMAGINE
6	BARRY McGUIGANS BOXING	ACTIVISION
7	YIE AR KUNG FU	IMAGINE
8	CAVES OF DOOM	MASTERTRONIC
9	TOMAHAWK	DIGITAL INTEGRATION
10	GUNFRIGHT	ULTIMATE
11	HYPERSPORTS	IMAGINE
12	ZOIDS	MARTECH
13	SABOTEUR	DURDURELL
14	ELITE	FIREBIRD
15	BMX RACER	MASTERTRONIC
16	SPITFIRE 40	MIRRORSOFT
17	FINDERS KEEPERS	MASTERTRONIC
18	THEY SOLD A MILLION	HIT SQUAD
19	ACTION BIKER	MASTERTRONIC
20	EMPIRE FIGHTS BACK	MASTERTRONIC
21	FORMULA 1 SIMULATOR	MASTERTRONIC
22	BACK TO SKOOL	MICROSPHERE
23	DALEY THOMPSONS SUPERTEST	OCEAN
24	LORD OF THE RINGS	MELBOURNE HOUSE
25	WEST BANK	GREMLIN GRAPHICS
26	NOW GAMES 2	VIRGIN
27	ONE MAN AND HIS DROID	MASTERTRONIC
28	COMPUTER HITS 10	BEAU JOLLY
29	INTERNATIONAL KARATE	SYSTEM 3
30	ARCADE HALL OF FAME	US GOLD

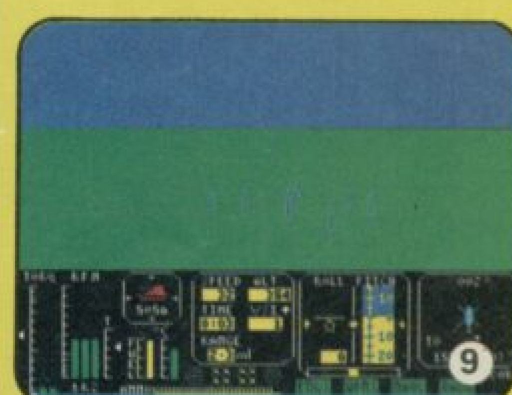
BUBBLING UNDER

MIKIE	IMAGINE
SOUL OF A ROBOT	MASTERTRONIC
SWORDS AND SORCERY	PSS
GLADIATOR	DOMARK
YABBA DABBA DOO	QUICKSILVA
SWEEVO'S WORLD	GARGOYLE
THREE WEEKS IN PARADISE	MIKRO-GEN
SINBAD AND THE GOLDEN SHIP	MASTERTRONIC
ZORRO	US GOLD
SPECVENTURE	MASTERTRONIC



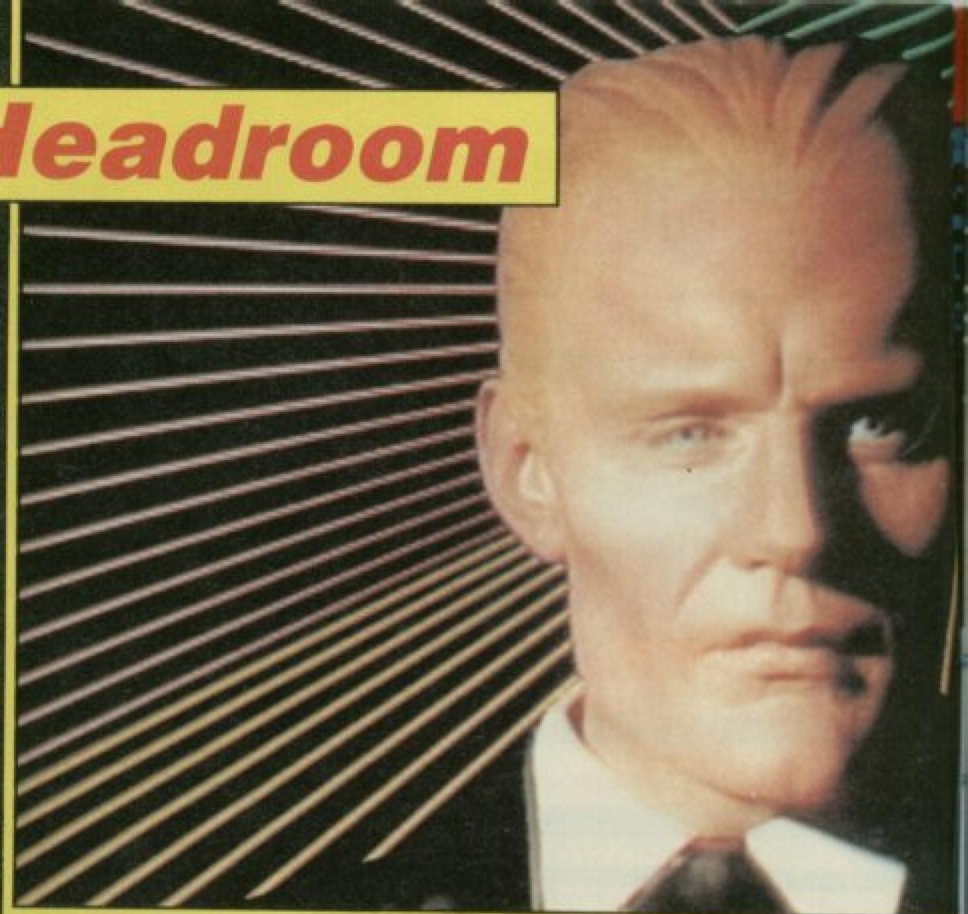








Max Headroom



H-H-HI THERE, my n-n-name is M-m-max and I'm almost here — well my head is — for the first **Max Headroom** show. Or is it a game? I'm not too sure right now.

And here it is. Max Headroom in person, well almost, on tape from Quicksilva. And like that well-loved computerised, digitised, whateverised image on TV, the game is as complicated and crazy as the man itself.

The plot is based on the feature film and follows the adventures of Edison Carter as he tries to regain the missing piece of his memory. The last thing he remembers before he crashed is a sign saying 'Max Headroom'. Just think. If Carter had crashed on a country lane we might be playing Zed Bends.

Anyway, with icon control and much brain power, you play the part of a computer program which helps Theora Jones control Carter in his search for the Max persona and the missing piece of his memory. Get it? No, well neither did I for a while. You can't have goodies without some baddies and Bryce, the mastermind beind Max, and a snotty-nosed computer whizz kid is determined to halt Carter; you have to override his instructions and help Carter. As well as Bryce, two thugs, inappropriately named Brueghel and Mahler stalk you on floors 200 to 208 of the Bigtime TV skyscraper. Their aim: to turn you into a stiff.

The 200th floor of the Bigtime skyscraper is Carter's first destination. Somewhere on floors 200 to 208 are eight pieces of hexadecimal code in four series of two. When these have been found, they will allow entry to the Presidential suite on floor 210. There Carter will find the last piece of code which will let him onto floor 209 where the computer lab and the Max persona is based. At this point he'll be halfway to regaining his memory and you'll be more than halfway to losing your sanity.

Now for the first brain teaser. To reach the Executive level — floors 200-208, you have to take control of the lift from Bryce — and that means playing the Seven Segment Display game on the lift's LCD floor panel. Bryce will try to stop you entering 'E' on the display and will attempt to divert you to any other floor. You must enter and keep the letter there for about ten seconds until the countdown reaches zero.

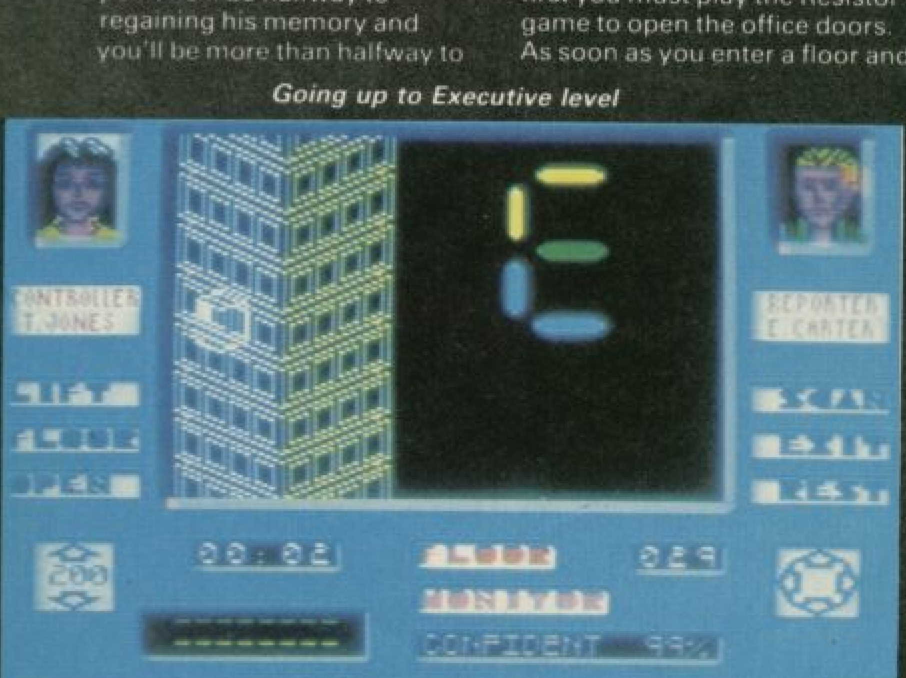
Imagine a digital 8. Now imagine a wire leading from each of the seven segments to a pulse bank beneath it. You must trace each wire to its segment and only send pulses to those segments which, when lit, outline the letter 'E'. Each time you use the lift you must play this game. Sometimes it's a number you must keep or maybe a 'P' for Presidential suite. Whatever, it's almost impossible on the first attempt and you'll have to sit down and learn the combination.

Now that Edison's managed to gain access to a floor he must search each of the 15 to 20 offices for a piece of code. But first you must play the Resistor game to open the office doors. As soon as you enter a floor and access the floor icon, the game begins. The screen changes to a picture of eight lightbulbs. You must be ready as the game starts immediately. Four bulbs light up in a random sequence. Take note of that sequence and repeat if in reverse on your set of four lightbulbs. Believe me, it happens so fast you'll probably miss the first one or two in the sequence. In fact, I made a pretty poor substitute for a computer program.

Now Carter can search the offices and also use them as a place of refuge to avoid the unwelcome attentions of Brueghel and Mahler. The detail in each office is incredible, each room is equipped with desks, chairs, flowers or may be a case of golf clubs on wheels — these finishing touches help to add an aspect of realism to rooms with doors but no walls. Quicksilva has chosen to use a similar



Searching offices for a piece of code



Going up to Executive level

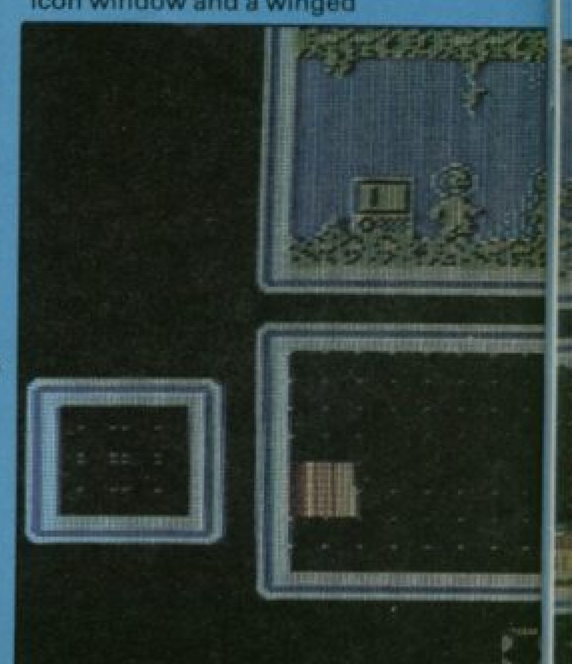
Hocus Focus

WORKING for the *Daily Shocker* is no way for a tender young lad like Jeremy Windburn to learn about photography. After all, the *Shocker* is renowned for its coverge of scandalous exploits.

Go to Hyde Park and take a butchers at the Professor's new invention, they said. So off Jeremy goes only to find the place in chaos. The Prof's in the jug, an insane spaceman is loose and in fighting form, and the invention is in bits. Actually there are lots of inventions — 16 to be precise — and they are all in bits.

With mounting excitement he starts to explore the strange subterranean caverns of the Prof's empire. Walking in front of objects tells him that they are part of the background scenery, walking behind an object tells him that it can be investigated. An icon window to one side of the screen allows you to use the camera and look at objects.

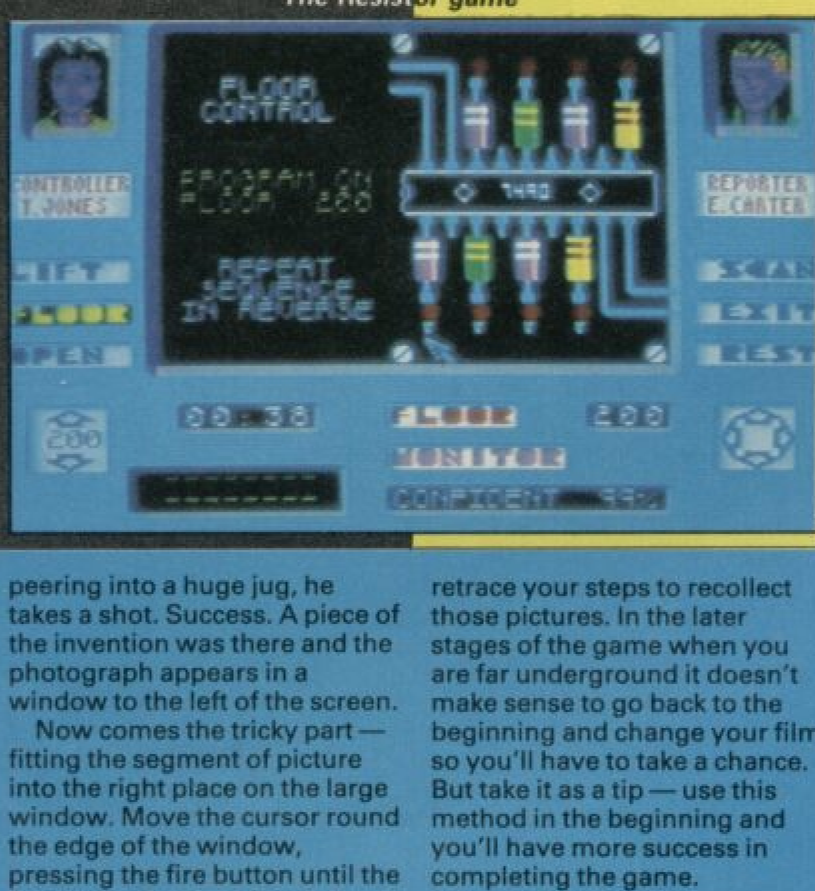
When his sticklike figure disappears behind a large TV set, Jeremy decides to have a look. Two eyes appear in the icon window and a winged





method to that of Ultimate's portrayal of rooms in **Nightshade**. There are lines on the floor denoting the boundaries of each room. It works very well in this case.

The graphics are fast though somewhat limited. Sticklike figures represent Carter and the pursuing thugs though if you scrutinise them carefully you can tell them apart. Carter always carries a camera under one arm, the others carry guns. Actually it's easier to use the move icon and pick out Carter that way. However, the detail and speed of movement more than compensate for the lack of colour and basic matchstick characters.



The Resistor game

Once you've found a piece of code, move to the next floor and search that. There are two lift shafts to the building and each must be used alternately, so you'll have to race across the room to use the opposite lift when you want to move up a floor. If you are fast, you will probably lose Brueghel and Mahler for a while though they are persistent and will eventually catch up.

When you're using the lift you see a picture of the skyscraper with the lift moving upwards. The lift changes to opposite sides of the skyscraper depending on which you are using. A nice finishing touch. Also, if you can be bothered to count them you will find that when you press 'E' for floor 200 — if you were able to slow the program — you would find that number of floors.

Once the codes have been found, visit the Presidential suite for the final piece of code and make your way to floor 209 where you'll regain your memory. Now the escape. To get out, you'll have to make your way back to ground level. See what I mean about sanity. Or was it insanity?

Your ultimate goal is the Max Reward screen where you'll come face to head with the man itself. Matt Frewer, the voice behind the mask has recorded a short m-m-monologue to welcome you and that has been digitised and added to the h-h-head.

There are a few icons to access during the game which are fast and easy to use. Those may be changed slightly in the finished version. The Rest icon



Max digitised — on the Commode, unfortunately

is a particularly good idea. You have only one life and a percentage rating giving your health status — confident in the eighties, wounded in the forties and very dodgy when you reach the twenties. Now is the time to access Rest and be repaired. This icon acts as a pause button should you want to escape for a month or three.

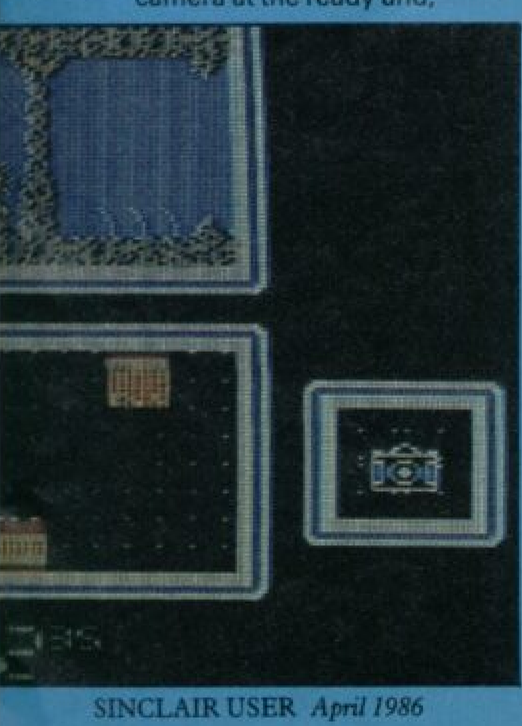
Complex or downright impossible? With only six real-time hours to crack Max, it'll be a race in code breaking. A winner perhaps? We'll wait till we receive the final version.

Clare Edgeley

SOFT PREVIEW 48K

monster flies out of the screen. The film in his camera has been whipped and so has his sword.

The next time Jeremy has his camera at the ready and, peering into a huge jug, he takes a shot. Success. A piece of the invention was there and the photograph appears in a window to the left of the screen.



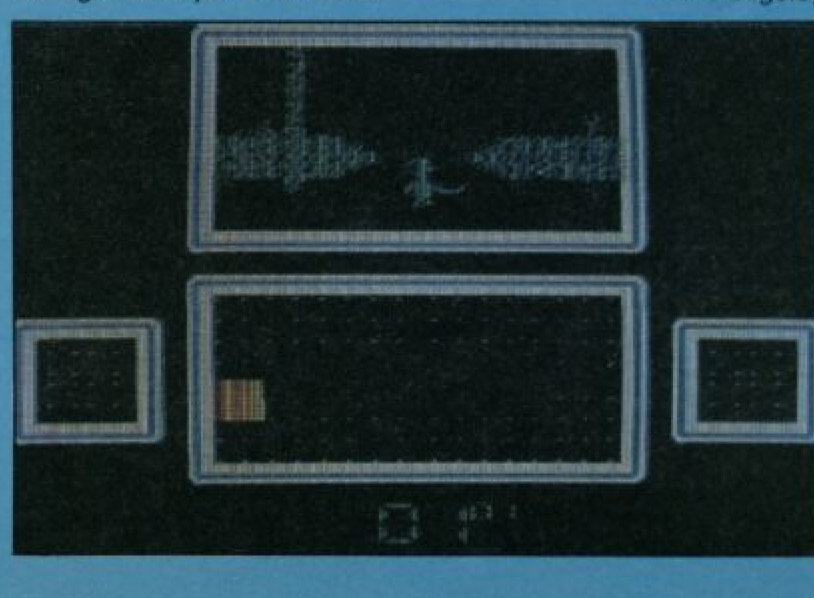
Now comes the tricky part — fitting the segment of picture into the right place on the large window. Move the cursor round the edge of the window, pressing the fire button until the fragment of picture lies in the grid. It's just like a jigsaw — the first piece is in place, you've now got to find and build the remaining 23 pieces.

There are a number of levels, through which Jeremy can descend. Climbing back up is a trickier job and he must first find a key. Quicksilva assures us that a key will be found on the deepest and last level.

In the early stages of the game it is not a good idea to take several photographs on one film. Although you've got 16 exposures, should you chance upon a booby-trapped object, the monster will steal the film and you'll have to retrace your steps to recollect those pictures. In the later stages of the game when you are far underground it doesn't make sense to go back to the beginning and change your film so you'll have to take a chance. But take it as a tip — use this method in the beginning and you'll have more success in completing the game.

I saw an extremely early version and additions and changes have yet to be made. However, the basic game remains the same as do the size of the matchstick characters. They are rather dictated by the small playing area which is about one quarter of the screen. Consequently, nasties like the nodding head and manic spaceman, objects like the sword, key, jugs, and fan and Jeremy himself tend to be a little cramped, though they are easily recognisable.

Clare Edgeley





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Ultimate flatulence

THERE SEEM to be a lot of people who reckon that black coffee and hot beans are the complement to Ultimate's return to excellence — **Gunfright,** — thought I, perusing *SU* (March issue) — but where?

Answer; reach for corresponding *Popular Computing Weekly* and look at the letters. . . Sure enough, a more-than-coincidental similarity between the two letters, the other being featured in PCW's Arcade Avenue.

Well, well, well, what have we here? Methinks there is a bad spud in the sack.

My only criticism of **Nightshade** was that the town was too big, and took too long to hunt through. Coupling a smaller town with a more complex scoring system, leads to faster, more varied gameplay — this is more like it!

Gareth Morgan,
Hook Green, Kent

● *Yes, it's annoying, though hardly surprising, that identical letters be sent to more than one magazine. In this instance the said weakly rag appeared long after our March issue had gone to press. At least we published the Pokes, though.*

Regurgitated garbage

DEAR Bennett of Southend,

Your letter which appeared in *Sinclair User* 48 was exactly the same as your letter which appeared in *Popular Computing Weekly.* Did you send a copy to every computer magazine or just those you thought would be daft enough to print it?

While reading your letter on **Gunfright** I drank plenty of strong black coffee to stop me vomiting the contents of my stomach (baked beans). I can only presume you had either loaded the free tape head cleaner or that you are just an anti-Ultimate kind of person. If this game had been marketed with the Ocean or Beyond logo I am sure you would have raved about it and it would have been given a five star rating from *Sinclair User.*

In this letter you say also that the original **Nightshade** was written by Dare. Don't you mean Rare Ltd?

Thank you Ultimate for another excellent game.

A Fan,
Gosforth,
Newcastle upon Tyne

Pathetic protest

THIS IS in protest at Roger Adlard's letter in the March issue.

Piracy is wrong, everyone knows that.

Gyron, Starion, Elite and **Fairlight** are reasonably good games, yes.

Action Biker is absolutely pathetic.

Your covers are OK.

Ultimate games are EXCELLENT!!!! (not pathetic!)

Does **Action Biker** stand among **Knight Lore, Alien 8, Nightshade** or even **Gunfright**? Huh, ridiculous.

Nick Annies,
Huntingdon, Cambridgeshire

● *Thanks, Nick. I think I know that 'excellent' implies 'not pathetic'. Ultimate games are — or were — pretty good on the whole, but I note that even you refer to "even* ***Gunfright***", *admitting that it's not quite up to the classic Ashby standard. Fingers crossed for* ***Cyberun.***



Idiot proof

AFTER READING in *Sinclair User* the letters written by people who have had problems with new Spectrums, I felt I must come to the defence of Sinclair.

A few weeks ago I was in Dixons and couldn't help noticing a woman with her two sons who were complaining about their Spectrum going wrong. The Spectrum, being their third, had the same fault as the other two. Eventually the youngest of the two sons admitted plugging in the joystick interface while the computer was on.

Not long after, the local TV news had a feature on the same topic. A reporter interviewed a boy who said he couldn't get his games to load. Do you think this is surprising, seeing that his computer and data recorder were less than six inches away from the telly. . . ?



Clive: too close to the TV

In wonder how many other faults have been due to misuse.

Jeff Fuge,
St George, Bristol

● *Clive would certainly agree with you, though perhaps the instructions which come with the machine could be more explicit about possible hazards. Poor loading can be caused by TV magnetic fields, but is more likely to be due to cassettes placed on top of the TV set.*

How to tease a microdrive

I WONDER if your expert has given the correct explanation of Mr Desmares' problem of the "microdrive not present" *Sinclair User*, December 1985 page 47. When I was faced with this problem I found the tape had jammed on the spool and by gently teasing out the tape from the spool a fraction, it ran normally. I also find that after putting in the cartridge, if I push it slightly to the left it runs more smoothly.

Of course, one must not use a metallic object to touch the tape. I found the plastic cap of a Bic ball pen perfect for the job!

Ian Kennedy, Ramotswa, Botswana



Drake's progress

MY LADS,

The rest of the Galleons with the Treasure from Melbourne are waiting half turbo-loaded at California, for the arrival of those from Silicon Valley. As soon as that takes place, they are to sail for Portovelo to take in the rest of their Cargo, mainly US Gold, with provisions and water for the fantastic Voyage to Britain. They stay at Portovelo a few days only. Such a chance perhaps will never occur agáin.

The Flying Alas of 36 guns at Terrormolinos, is a new and uncommonly fine Frigate. Built on purpose. And ready for an expedition, as soon as more good hackers are on keyboard.

Captain Francisco Drake, — who was not drowned in the Arabian Nights as reported — commands her. The sooner you are on keyboard the better. None need apply but Popeyes, or stout hands, able to rouse about the Field Pieces and copy an hundred weight of Software without stopping for at least three nights.

To Spanish Seamen.

Francisco Drake.
Terrormolinos, España.

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● *Thundering typhoons, it's the Jolly Roger. . . Avast, pirates! Belay, lubberly scum! Hoist the red pennant and stand by to repel boarders! Avast, sea-lice!. . . Baboons!. . .*

Almost right

ON READING the March issue I noticed Gary Hunter's letter, with marks of perfection for the three most successful software companies. He says: "Any

► 18

17 ◀ comments?"

Yes, I'd like to make a comment: is he any good at maths? Because if you work out each percentage he's got them wrong.

Ultimate should have 97.5 per cent, Beyond 91.1 recurring, and Melbourne House, 88.57.

Except for that major error, I find nothing wrong with your brilliant mag. Please can I have a trainspotter award? Sorry, wrong mag.

Andrew Wright,
Edinburgh

● *No, you can't — even if I did know what one was.*



Jones the Drag in happier days. He's on the left — possibly

Looking blue

I APPRECIATE the more comprehensive software reviews, especially of the adventure programs. I'm not so keen on the brightly coloured pages, especially the blues and greens, as it is a struggle to read the print.

Sheila Thomas,
Cambridge

● *Gareth the Mad Celt does tend to get carried away with his designs sometimes, but I mustn't say too much behind his back, or when he comes to layout this letters page he'll cut short my repli*

The Cult of the Celt

DEAR Gareth Jones,

I am writing to you on behalf of my class, 7B, who are involved in a letter-writing project called Mountain of Friends. We have had replies from many famous people including the Royal Family, Mrs Thatcher, Denis Thatcher, Neil Kinnock, Peter Fraser, Andrew Welsh, Bell's Whisky, Gargoyle Games, Gremlin Graphics, and many others.

I would be grateful if you would be so kind as to write back telling me how did you get your job. Please reply.

Andrew Mitchell,
Class 7B, Kinloch Primary School,
Carnoustie, Angus

● *Yes, a lot of people have wondered that. It's one of the Great Mysteries of our Time.*

But more to the point, who are Peter Fraser and Andrew Welsh? They sound suspiciously like Celts, too. Come to that, who the hell is Gareth Jones? I mean, he's only a designer, he's not an editor, or anyone really famous. Now, if you want me to reply I'll be only to. . . Gareth! What are you doing?

Artistic feat

REGARDING the comments about the "out of proportion" drawing in one of US Gold's advertisements — the reason is obvious when you realise that the artist mis-read the title as **The Leg End of the Amazon Women.**

J Trollope,
Sleaford, Lincs

● *Groan*



The Wild Legs of Wongo

Sticks and stones

LOVED — cough, cough — the way you've changed the design of the mag. The ad for **Legend of the Amazon Women** didn't corrupt me in the least bit (now where's my copy of *Playgirl*?)

Perhaps that dumbo of an editor Scolding thinks we all play **Commando.** In the past there was too little coverage of games. Now there's too much. Please could we see a better balanced mag?

On the subject of games, after comparing **Tomahawk** to **Elite,** Firebird deserve six of the best for the infamous Lenslok instructions. **Elite** nearly put me off buying **Tomahawk. . .** The same goes to Melbourne House over **Lord of the Rings.**

Derek Gabbidon,
Coventry

● *The only reason this one's included is to show you that we don't make the letters up. Dumbo, indeed. Good grief. . .*

Talking sense

I MUST congratulate you on your excellent 'new look' magazine. It would be better, though, if you put maps, like that of **Lord of the Rings,** in the centre pages.

Mark Barnwell,
Torpoint, Cornwall

● *That's more like it — a sensible, rationally-argued, interesting letter, both persuasive and well-written. Collect a gold star. Now, why can't old Gabby from Coventry be like that?*

128 into 48 won't go

I HAVE two points.

Is there going to be an upgrade kit for converting a 48K Spectrum to a 128K? How much will it cost and will it require expert help to fit the new chips?

Secondly, Mrs M White of Newhaven — letters, March — sounds very much like Mrs E A Jones of Yeovil who has made similar comments in the past in *Crash* magazine.

Both I feel sorry for, and hope they have good locks on the children's bedroom doors, as the drawing in question is tame compared to what you see walking down the high street.

K Pridmore,
Anlaby, East Yorkshire

● *I don't think I've seen any walking drawings, in the high street or elsewhere, but I see your point. I also think it's a dreadful ad, though not for the reasons given by Mrs M White.*

As to a 128K upgrade kit — no, there won't be one. The 128 is so radically different from the 48K that such an upgrade would be both impractical and expensive.

▶ 20

18 ◄

The final Blast

I AM retired and there aren't many of my circle of friends who are keen computer types. So my main contact with what is going on in the computer world is via magazines and *Sinclair User* is top of the list.

I'm not great on games but I do enjoy programming. So it was a relief to find that other readers echo my experiences. Firstly that the service from Transform is first-rate. Most things arrive by return post and an Epson printer, which I had expected to take about four weeks, came within ten days.

I too have been caught by the claims of **Blast** and found within a few moments I had half a dozen Basic programs that it won't compile. Letters to them remain unanswered. The security system drives me mad.

The need for compiling Basic is a bit over-stressed and generally isn't really necessary, but if a faster operation is required and machine code isn't favoured then I would suggest that Pascal gives the speed and can be learned almost as easily as Basic. A Pascal compiler is a much better bet for success than **Blast.**

On the plus side I'd like to add OCP's **Finance Manager +80** which I find is superb. To this I'd add **Masterfile, Omnicalc 2** and, of course, **Tasword.**

Stan Wheeler,
Ross-on-Wye,
Herefordshire

WITH REFERENCE to the blasting of **Blast**, — March, *Sinclair User* — I wonder if I've got the same software.

As an 'oldie' (over 30), I was frustrated by my ability, or lack of it, to program only in Basic, and I wrote several rather pedestrian games.

Since I received **Blast**, all has changed. It may not be 40 times faster but even in P-code I've been able to put in frills (extra random losers etc) which couldn't be done using Basic.

Thanks for an excellent mag.

R A Buckley,
Sheffield

OCS SENT ME three different versions of **Blast**, none of which did anything useful at all, except transfer to microdrive. I gave up on them in the end, deciding it would be simpler to learn machine code programming than try to figure out my heavily annotated version of the manual. Twenty-five quid wasted.

Martin Baxter,
Cambridge

● *The controversy over the merits and otherwise of the* ***Blast*** *compiler looked set to rage for some time. Unfortunately, though, Oxford Computer Systems has now gone into receivership and so perhaps we should draw a veil over these sorry proceedings.*

Thanks a lot

THIS IS an effusive fan-letter.

Well, why not? Reviewing software must be a godawful task at times — all the more reason for authors who feel they have been treated generously to write and say "thank you".

So, thank you, Chris Bourne. For what? For the kind words about **Here Be Tygers** on the **Automata 10 Pack Vol. 3.** It really is very gratifying to know that you enjoyed it. Consider yourself number *two* on my Christmas blood-orange list.*

Bob Franklin,
Southsea

* Annie Lennox, since you ask.

● *Damn. Old 'lunchbreaks' Bourne is going to be unbearable after this.*

Chilling tales

AS I WAS studying the shelves of an un-named high street store called Boots, my eyes fell on **Chiller**, by Mastertronic. At £1.99 and with a trendy cover, this seemed to be a hit. I purchased it without further ado.

When the game had loaded some ghastly writing appeared giving me control options. I pressed '2' for Kempston and. . .

Eh?

On closer examination I realised this wasn't **Jet Set Willy** but a similar game, jam-packed with less-than-sprite-quality graphics. After two horrendous games I was howling for my £1.99 back.

And Mastertronic *still* spell cursor as 'curser'.

Peter Cashmore,
Wolverhampton

● *Trendy cover?*

Lonely ROMS

I AM 15 years old and live in Poland. I own a Spectrum and would like to have some penpals who live abroad with whom I can swap tips, programs and so on.
Piotr Bokina,
ul. Falista 16,
81-331 Gdynia,
Poland

I'M a 22-year-old young man, and I own a 48K Spectrum. I'd like to have penfriends to swap letters and programs with. All letters answered.
Yasser Hamed Ibrahim,
PO Box 115 Hadaik Shoubra,
Cairo, Egypt

I'M 28. I would like to swap games, hints, tips with Spectrum owners in Europe, especially the UK.
Carles Ferry,
Clot 25 Atico 1ª
08026 Barcelona, Spain

I OWN A QL and I would like to have an English penpal. I am 15, Icelandic and live in Israel. I am interested in writing programs, playing adventures and exchanging programs.
David Eyjolfsson,
c/o Fsl T Eyjolfsson,
HQ Unifil, Feltpost 104,
Oslo Hovedpostkontor,
A G Udlandet, Norway

ARE THERE any 25 to 30 year old lady computer fans in the Midlands who could teach a single 30 year old man how to use a computer to its best advantage?
A L Yates,
30 Nursery Road,
Leicester LE5 2HQ

I'M a 38 year old male QL owner from Sweden. All letters will be answered — even those from Uncle Clive.
Nils Rydstrom,
Alviksgatan 17
S-59300 Vasteruik, Sweden

I AM 10 years old, and looking for a boy of about the same age. I have a 48K Spectrum and I would like to learn how to program games.
James Wainman,
21 Elizabeth Avenue,
Kirk Sandall,
Doncaster, South Yorks

PENFRIEND wanted in the UK. I am almost 17 years old and I own a 48K Spectrum. My favourite games are **Lords of Midnight, Doomdark's Revenge** and **D-Day.** Favourite book, **The Lord of the Rings.** Boys, girls, write to:
Pal A Woje,
Bankgata 33B
8000 Bodo, Norway

I AM English and would like some European penpals. I am 14.
Gary, 38 Hill Rise Road,
Collier Row,
Romford, Essex.

► 22

20 ◄

The chips from Brazil

IT WAS with great interest that I read your news item on the Brazilian Spectrum, the TK 90 X, mainly because I reside in Brazil and I am the owner of one.

However, your article states that the TK is completely compatible with the Spectrum. This is not the case — at least on the version sold in Latin America. Microdigital, who make the TK, has substituted the ULA chip for half a dozen anonymous chips which leads to this incompatibility. Most programs in the UK will run on the TK, but others like **Elite** or **Tomahawk** won't. Before your readers rush out to buy a TK, be warned. It's not cheap, costing around £195 at the moment. The I/O ports are in different locations to those of the Spectrum, so normal add-ons won't fit and the general finish and reliability is nowhere near the standard of the Spectrum.

One of the advantages of having a Spectrum lookalike in Brazil is the vast amount of software available, and at very low prices. Most reputable software shops will sell you any of the more popular UK programs for 95 pence, if you deal mail order then you can buy (say) **Saboteur, Beach Head 2** or **Gyroscope** for 60 pence. All of these programs are pirated copies, which have been smuggled into the country.

Mike Davison,
Rio de Janeiro

An offer you can't refuse . . .

Dear sir
How would YOU like a super story on the mr BIG and the mr small of the software pirates?
I can get you an INTERVIEW with aman who with 2 other people runs a bisness selling COMPUTER tapes.He makes 60 pound a weekend*
I can also get you an interview with some small time pirates to.
I can tell you about the people at the top e.g I had super zaxxon 3 MONTHS before its release date.
Also about people on the bribe e.g a copper is takeing bribes and telling pirates if there is any danger of being cought.
And about COPYING devices and techniques.
And about how pirates,BIG pirates run,that is if you pay the price we want.
And how big pirates are set up how they get there software and how they get there blank tapes.
If you want this ACE story come to HAVERHILL in SUFFOLK and find the chakstone then find chelmer road drive right to the bottom and then about io.25 on the morning of the 3rd of march you will meet me and i will tell you all that i KNOW.
All this for JUST 5oo pounds cash.
YOURS STEVE

● *Whadda ya mean, JUST £500? Where were you, anyway?*

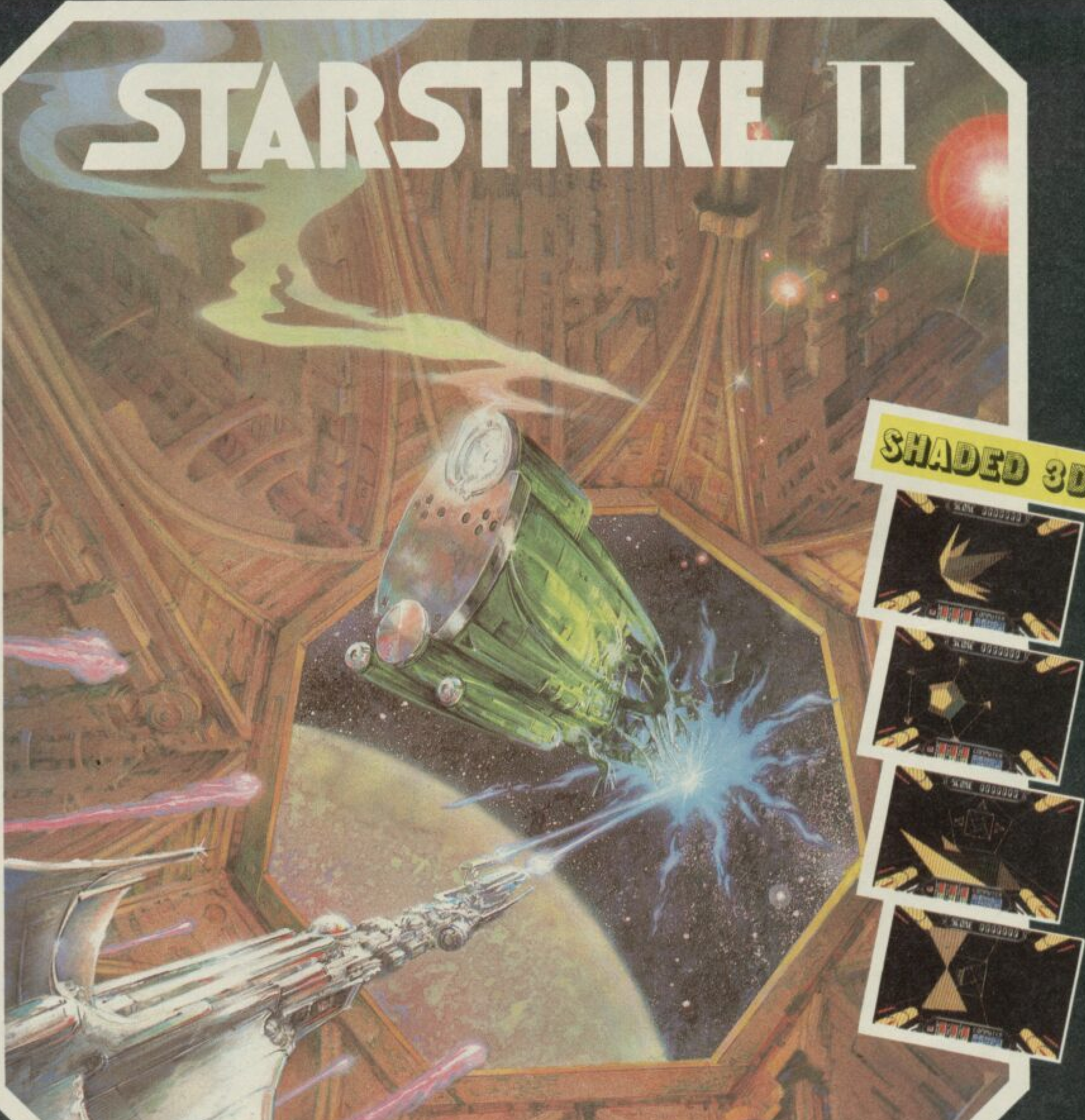
Seeing stars

AS for R E Cante's letter in the March issue, describing *Sinclair User* turning into a child's comic. . . Well, I think there is nothing wrong with it. I give the magazine four-and-a-half stars, but please put Program Printout back. Before you took it out I would have given you five stars.

Martyn Neads,
Maidstone, Kent

● *Since we reduced the number of programs published in the magazine, we've received few complaints. Most readers prefer our selective, more detailed, approach to listings now. Some even manage to get them to work. . .*

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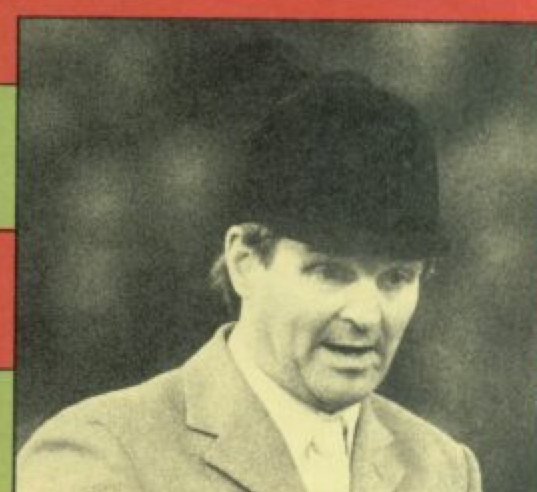




A



B



C

★★★★ COMPETITION ★

Win a Spectrum 128

and 50 copies of Alligata's Showjumping simulation

SHOWJUMPING'S not for cissies.

Fences five foot or more in height, seven or eight feet deep.

Solid wooden blocks and poles to crash into.

And all the time the merciless spotlights and television cameras there to record your every mistake.

Showjumpers are princes in the world of equestrian sports. They strut centre-stage, splendid in their traditional finery. The great events are as much a part of British tradition as the Grand National.

Now you can take part in all the skill and thrill of show-jumping, thanks to Alligata's excellent simulation — a genuine attempt at capturing the precision and strategy of this demanding sport.

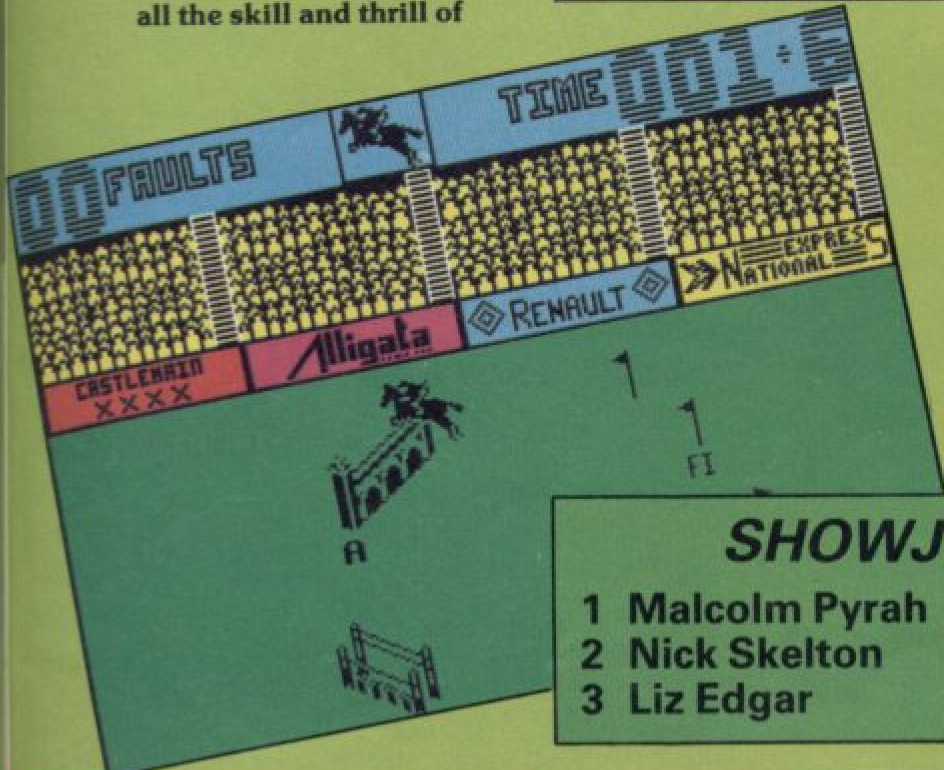
And to go with our competition, we've got a tremendous prize — a brand spanking new Spectrum 128, hot off the production lines of Sinclair Research, as well as a free copy of *Showjumping*.

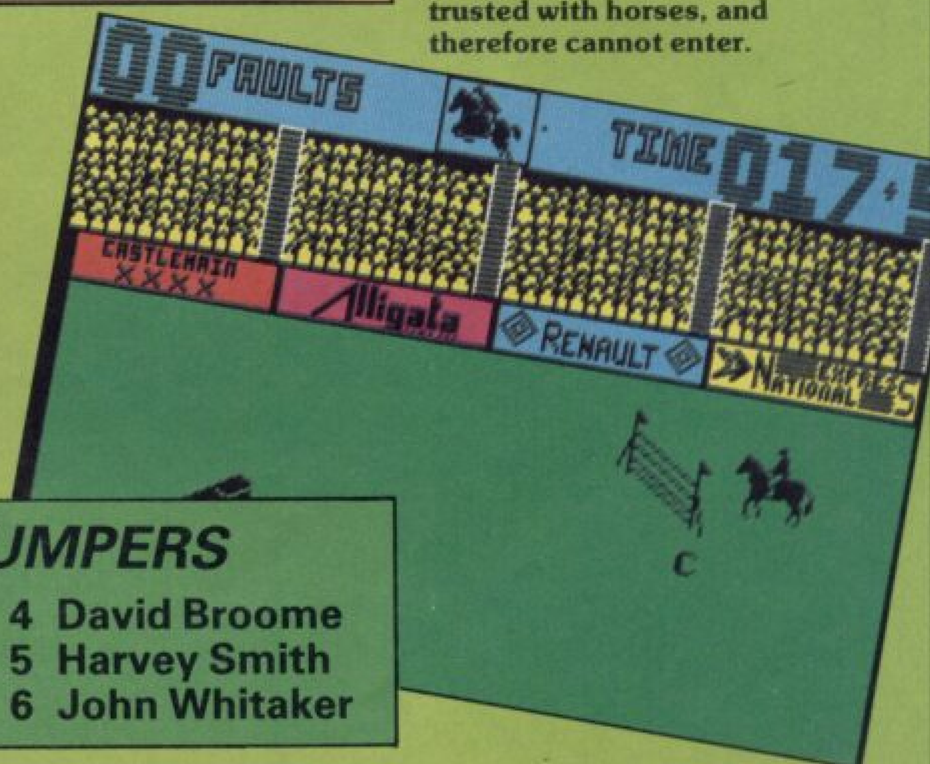
Fifty runners up will receive the game only, but first you'll have to solve our little puzzle.

There are six photographs of famous showjumpers. All you have to do is match up the names with the faces — if you think Harvey Smith is picture A then write 5A on your solution.

When you have worked out all six, write the answers down on a postcard and send them to us at Showjumping Competition, *Sinclair User*, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU, not later than Friday April 18. Employees of EMAP are not to be trusted with horses, and therefore cannot enter.





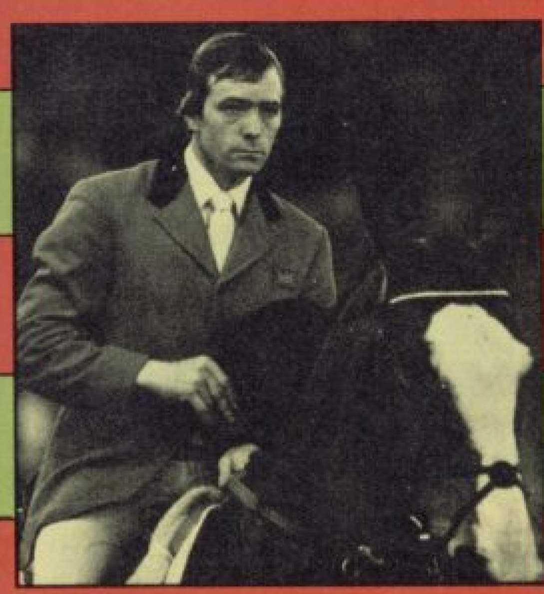


SHOWJUMPERS

1 Malcolm Pyrah
2 Nick Skelton
3 Liz Edgar
4 David Broome
5 Harvey Smith
6 John Whitaker



D



E



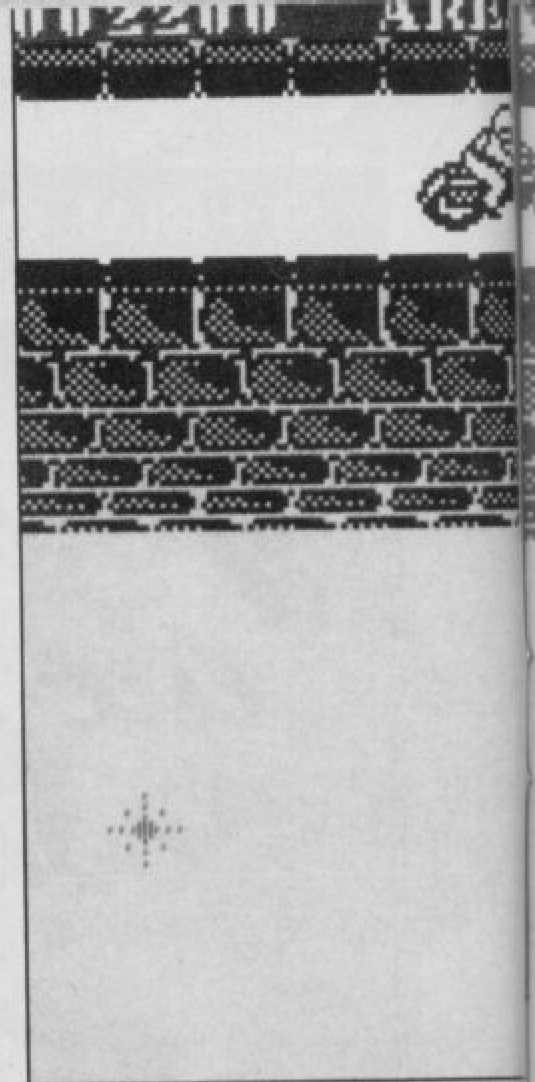
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ZAPCHAT

Keep those tips, hints and Pokes rolling in!



Pokes

POKES CAN give infinite lives — suspend the killing power of monsters and take you through all the screens of an arcade game — but they must be entered before the program starts to run.

There are usually two main parts in each commercial piece of software — the Basic loader and the machine code. All Pokes must be entered in the Basic loader. Start loading your tape but instead of using the instruction LOAD " "type MERGE" ". When the Basic has loaded stop the tape and list the program. It will probably contain a few LOAD " "or LOAD" " CODE instructions, then PRINT or RAND USR.

The USR instruction invokes the machine code which starts the game, so any Pokes should be put into a line before it. For instance, if you have a Basic loader such as the one below you would put your Pokes at line 30:

```
10 PRINT "LOADING"
20 BORDER 0: CLS
30 POKE 43154,0: REM
   POKES IN HERE
40 PRINT USR 23446
```

In some cases you will have to replace the whole Basic loader with another filled with Pokes. First Save the new loader onto a separate tape. Then Merge in the original loader and type NEW. Load in your new loader and Run it. Now start the tape again and load the rest of the program.

Last month several readers had problems with Gunfright. The Pokes are right but you should replace the original loader with the Basic listing on page 22 of the magazine. The Pokes will give you infinite lives and top your gun up with bullets when you run out.

Saboteur also posed a problem last month. The problem is that the program will crash if you try to get at the loader. The solution is to replace the original Basic loader with the one below:

```
10 CLEAR VAL "25200":
   POKE VAL "23659",0
20 LOAD CODE VAL "16384"
30 LOAD CHR$ 22+CHR$ 0 +
   CHR$ 0 CODE
35 REM put all the POKES
   from last month's issue in
   here
40 POKE 23659,2: LET L=USR
63972
```

3D Starstrike

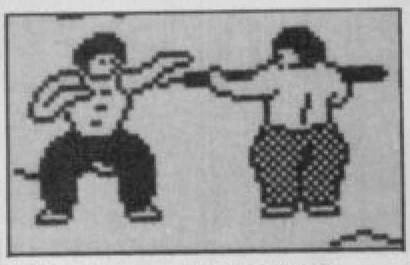
IN THE November 85 issue there was a tip for **3D Starstrike** from M Sheepwash. It read, "Press key 1 to pause then type in 'I wanna cheat'. This will give you infinite shields. If you get bored, then press key 1 to pause again, then type in 'boring' and it will return to normal."

Yes, it is perfectly true, but it only works if you put a space in between the words.

Paul Batchelor,
Doncaster,
South Yorkshire

PS When you get onto level seven you need to shoot 25 tower tops for the bonus. My high score is 1,308,900 and I got to level 11.

Yie Ar Kung Fu



I WAS amused to read that Kevin Mogridge had a score of 641,000 on **Yie Ar Kung Fu** in the February issue.

I got a score of 4,371,500 on the 250th stage and I gave up with eight lives left and aching fingers.

Did you know that when you get to 2,000,000 your lives remain the same, so it's easy?

Jason Clark,
Crewe,
Cheshire

Specventure

I HAVE completed Mastertronic's brilliant **Specventure** and here are all the codes:

Screen 1:Fast; 2:ta=V; 3:STAR; 4:MAST; 5:QUAE; 6:Z8OA; 7:LDan; 8:ALU#; 9:SPOK; 10:Bugs; 11:LOST; 12:Chr$; 13:????; 14:ULAq; 15:ULAc; 16:TRIM; 17:CROM; 18:SINC; 19:buzz; 20:Wawe; 21:VAGA; 22:conn; 23:LISA; 24:EARc; 25:Leia; 26:Kybr; 27:ramU; 28:Game; 29:difi; 30:PV=K

Darren Heaton,
Malvern,
Worcestershire

West Bank

I WAS awarded the position of Sheriff of Soft City on February 18 at 1.52am. I received my badge after the 18th phase on day two. The game then went on to day three and phase 19.

The game of course is **West Bank** and I have a grand score of 196,730 in 18th position. Has anyone out there got a greater score?

Jason McLoughlin,
Address unknown

Jasper

CAN ANYONE help me get past screen six of **Jasper?** Although I have tried for ages, I cannot get past the snakes.

Jonathan Langham,
Cheltenham,
Gloucestershire

Three Weeks in Paradise

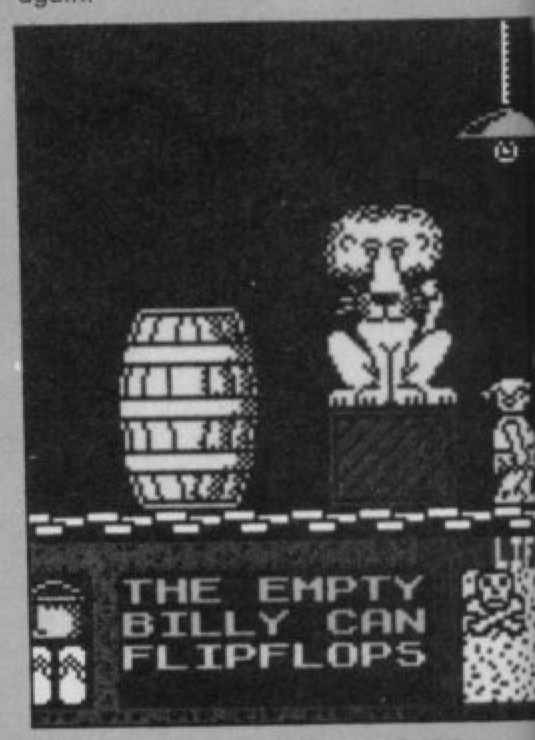
I HAVE completed the 48K version of **Three Weeks In Paradise.** When Wally frees Wilma and Herbert and goes to the beach you see the island with Congratulations flashing above it. You then see a small raft floating away. I scored 100 per cent. Here are some tips:

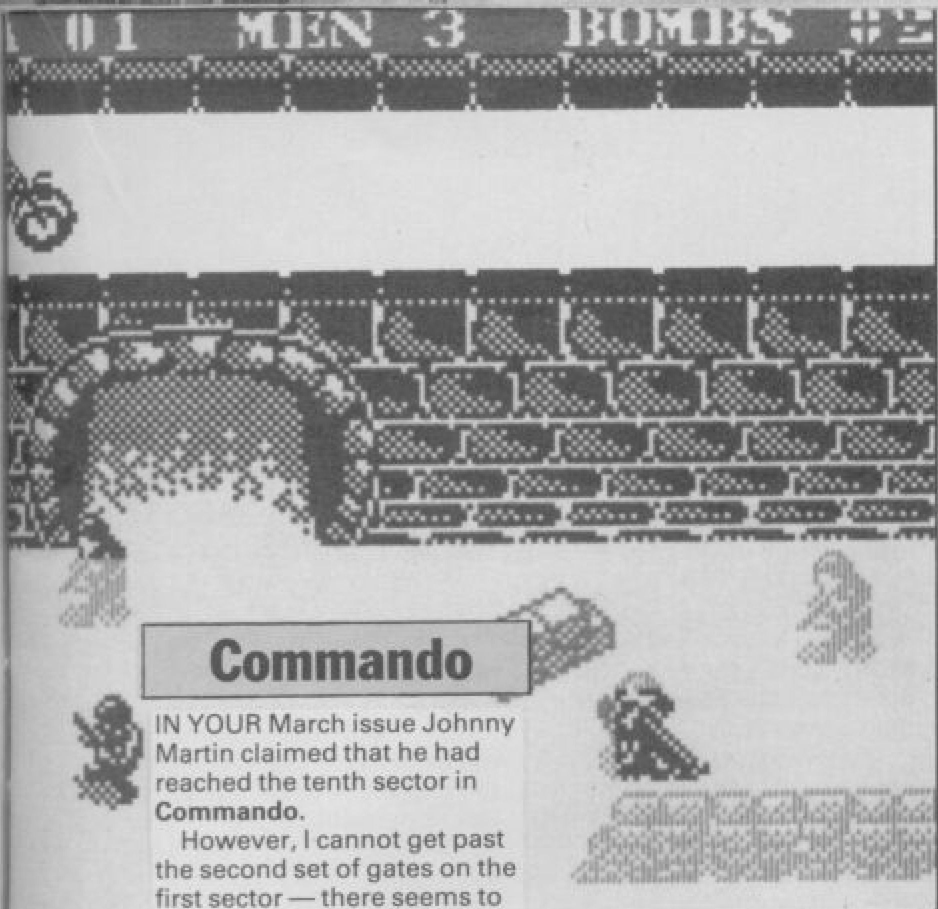
The Secret Passage: the picture in the screen with the snail and table is a secret passage to the beach.

Freeing Wilma: get the mint — it's behind the trading post — and Wilma's handbag. Go to the crocodile screen. The croc will be sad, go past him. Go to the ice cube and use the mint. Pick up the hole and leave the bag in front of the crocodile. Get the goldfish bowl. Go to the well screen. Go to the far left of the screen and use the hole. Go into the new doorway and get the key. Go under the sea, via the beach, and in to the locker. Get the spinach. Go to the screen with the large bird — next to Wilma's screen and get the egg.

Take the spinach and the egg to the geyser screen. Go to the far right-hand side, just right of the creeper and face left. Jump and run until you are under the geyser. You will be carried up. When you reach the top jump into the nest and exchange the egg for the bow and arrows. Jump down. Go to the Wilma screen and leave the bow and arrows there.

Go to the well screen and jump up till you get to the rope. Press the use key and you should fall down the well. Get the bottle and go to the right-hand side wall and, when there are no bubbles above you, press the use key. You will climb up to the top. Get the corkscrew and go to the crocodile screen. Swap the corkscrew for the bag and walk past the croc, leaving the bottle by the coconut. Do the same for the corkscrew. Make sure you have the corkscrew and the bottle. Use these over the nut. Pick up the bag and go past the croc. Leave the bag there — you won't need it again.





Commando

IN YOUR March issue Johnny Martin claimed that he had reached the tenth sector in **Commando.**

However, I cannot get past the second set of gates on the first sector — there seems to be an invisible wall blocking the way and hundreds of soldiers rush out and shoot me. I've tried shooting back but there are too many. I've tried grenading the wall but the gap created closes up before I can get through. Can anyone help?
Matthew Sellens,
Hastings,
East Sussex

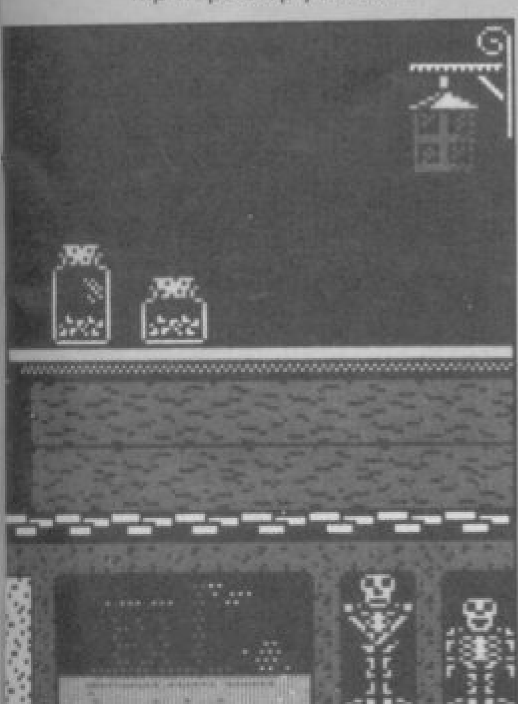
Get the blunt axe and the bottle of oil and go to the screen with the car. Position yourself at the front wheel and press the use key. Take the sharp axe and go to the Wilma screen. Pick up the bow and arrows and face the native. Press the use key, you will fire an arrow which will kill him. Go to the rope tying Wilma and use the axe. Wilma is now free!

Freeing Herbert: get the flip-flops from the trading post and the billy can from the frog screen. Go to the geyser screen and do the same as you did when freeing Wilma, but instead of being sucked up the billy can will be filled in. Go to the screen on the right of the geyser and onto the quicksand, the flip-flops stop you from sinking. Stand in front of the crab and use the billy can. Pick up the crab's pincer and go to the Herbert screen on the right-hand side. Stand over the thorn and use the crab's pincer to pull it out. You can now get through that screen.

Get the deux sticks and the bellows. Go to the anvil screen and stand over the wood pile. Press use to light the fire then press use again to get the ashes. Take the ashes to the screen with the little white native and use them under his feet. The cloud will now start shooting bolts of lightning.

Go to the right of the cloud and blow it along with the bellows until it is over the hut. The hut will disintegrate revealing a shell. Take the shell to the well and go down the well again. Move under the drip of water. This will fill the shell. Take it to the Herbert screen and place it under the pot. Use the shell. Herbert is free!

Now go to the beach and you have finished the game.
Alexander May,
Lewes,
Sussex



TO GAIN infinite lives on**Three Weeks in Paradise** wait until Wally has been knocked down. When the stars start revolving round his head quickly press Symbol Shift, D and P.
Paul Crowley,
Saltash,
Cornwall

Gunfright

HERE IS a Poke for Ultimate's **Gunfright** which stops the bandit drawing during Quickdraw mode.

```
10 FOR a=1 TO
7:LOAD""CODE:NEXT
a:POKE 47919,0:POKE
47920,0: RANDOMIZE USR
23424.
```

A Fan,
Gosforth,
Newcastle Upon Tyne

IS ANYONE having trouble with Ultimate's latest smash **Gunfright?** When you start the game and have to shoot the money, keep your crosshairs at the bottom of the screen. This allows you maximum time to react. To find your horse, you should move west — referring to E Bennett's map March issue — until you come to the corner, then move north a couple of buildings and you should see your horse. When you get to kill Ma Baker and Wild Will your 'decaying carcass' moves to the other side of building, opposite the old place.

The Baddies you have to kill are Buffalo Bill, Sun Dance Kid, Ma Baker, and Wild Will. That is as far as I have got. You will probably have come across a small boy jumping up and down and pointing in a direction. He is telling you the direction the Outlaw is moving in. Not where he/she is.



When you find the Outlaw shoot him, the screen then changes and you are faced with the baddie. You must shoot him first or it's curtains for you. A good move is to shoot the baddie in the back and then, when you get to shoot him for the second time, he should pause for a second.
Sheriff Julian Marshall,
Abingdon,
Oxon



Rambo

MY FRIEND and I have found a bug in **Rambo.** After you have rescued everyone a blue helicopter chases you. If you shoot at it from your helicopter the game crashes. To complete the game you have to keep going up until you reach some blue hangars. Land and walk inside one of them to finish the game.
Tony Winterbottom,
Terry Murray,
Cornwall

Formula One

IN REPLY to Andrew Charters — March issue on **Formula One** — I had a total of 240 points and a driver's score of 144 and 96, coming first and second in all 16 races. This was on expert not a weedy novice level.
Andrew Wright,
South Queensferry,
Edinburgh

Back to Skool

BACK TO SKOOL has bugs in it. If you go right up to the left wall of the boys' school, face right and then fire the water pistol, the screen will scroll. Press any movement key and the screen will scroll again.

Another bug lurks in the blue room. During a lesson when the teacher is wiping the board, run into the library. Wait for the swot to tell on you. When your name appears in the swot's sentence return to the blue room. The teacher will start wiping the board again. Wait for about five seconds and walk towards the teacher — he should now be trying to walk through the wall. No go into the toilets and you will see that the teacher has gone.

I completed the game three times in one go with 3200 lines and a score of 65,530. I then pulled out the plug.
Lloyd Russell,
Bognor Regis,
West Sussex

► 30

◄29

Monty on the Run

THIS IS how to complete **Monty on the Run.** Select the following items first: No 2 — jetpack; No 4 — rope; No 12 — passport; No 13 — gas mask; No 16 — bottle of rum.

Collect all the coins you can but leave the ones which are dangerous. Always collect the buns in The House. When you come round to the first screen of the Sewerage Works, walk through the teleport — this can be tricky — then collect the bun in that room. The wall will disappear and you can walk through.

Collect everything you see in this new area. When you come into the room with Help printed on it, go into the teleport and you will find yourself in another room — collect the switch and money.

Make your way back to the Help screen and you'll see that the floor has been filled in — but only if you have collected everything. Walk through the teleporter and you'll find yourself in a room with a rocket pack. Move to the right and you will eventually end up at the Tree Stump. Go to the top and collect the object then descend using the jetpack and move left to 'drive Sir Clive's C5'. You need the object from the Tree Stump to complete the game.

Move through the rooms until you reach the end and drop into Das Boat. Collect all the objects, go to the bottom left-hand side of the boat and collect the key. Now move to the top left-hand side of the boat and you will see a flashing square. Jump onto this to finish the game.

Nick Annies,
Huntingdon,
Cambridgeshire

I CLAIM to be the first to complete **Monty on the Run.** I finally finished the game on February 20 with a score of 6650 and three lives remaining. I have also beaten Paul Whitby's score on **Commando** — March issue — with 245,250. Beat that if you can.

Robert Lilley,
Belfast,
Northern Ireland

Winter Games

I HAVE just completed **Winter Games** with the following results:

Ski jumping — 206; hot dogging — 10.00; speed skating — 37.6; figure skating — 2.8; biathlon — 1.25; bobsled — 24.86; free skating — 2.8.

Stephen Owen,
Norwich,
Norfolk



Elite

I HAVE found a bug in Firebird's **Elite.** First get to Elite status and go into galactic hyperspace to galaxy five. You will find yourself around the planet Eduela but there will be nowhere else to hyperspace to. Is this a bug in my program?

Jonathan Pike,
Limpley Stoke,
Avon

MY FRIEND and I bought **Elite** and have reached Elite status.

We have found a ship which is shaped like a space station but doesn't have a hatch. This ship is impregnable to any fire — even an energy bomb. The missiles explode on impact but don't destroy it. After shooting at it for some time it unleashes rapid laser fire which destroys you in two seconds.

Is there a bug in my program? Can anyone help?

James Skudder,
Beckenham, Kent

I HAVE now reached status Deadly in **Elite** with 200,000cr.

In one mission to destroy a Thargoid space station I was helped by the fitting of an ECM system jammer. When I accomplished the mission I was given something called an 'Iritab-II' but I don't know what it is. Can anyone help me?

K Heaton,
Warrington,
Cheshire



Spellbound

MORE CLUES for those **Spellbound** by Mastertronic's magic marvel. . .

The weight you can carry is equivalent to your strength — if your strength is 95 per cent you can carry some very heavy objects; if it is ten per cent you cannot carry much. As David Moore of Malvern — March issue — said, you give the bottle to Florin (not Flavin!!) to retain strength, what he did not say is that it can be repeated time and time again.

Characters should be fed every five or six hours and kept happy hourly. Orik can be summoned after four hours into the game — game time. There is a large number of clues to be collected from Banshee, who is released from the glowing bottle. A few are listed:

A distant cousin of mine is pretending to be a pool of liquid. A spell could be of use to both of you.

The proof is in the bottle. Lend it to Florin and gain strength by your actions when you claim it back.

They that would be last shall be first and the first shall be last.

Bring back lost in space!

Red herrings are not always fish!

Candle light, Candle bright, Four leaf clover, From the night, Without the lot, Your chance is slight.

Which brings me to the question, how do you light that darned candle? How can you read it?

Also, if those clues do not confuse you the crystal ball in the lift is very helpful, showing messages such as: A spirit appears and tells you that Samsun will be of much use to you if you give him the javelin. The mist clears to show Thor helping you in the lift. In the midst of the mist you see a tarot card which means death and destruction, or the demolishing of hopes and pride.

You can see a wall come crashing to the ground. There is a noise and the image of an old religious book written in Hebrew.

And. . . the magic talisman will be of much use to you if you can mend it — or get somebody else to mend it. To cast the spell FUMATICUS PROTECTIUM you will require two very smelly objects.

Also, the mirror — odd ball — is a good guide to your strength and the items you are carrying. Miolnir — belonging to Elrand on the second floor — enables you to throw light things at people. Elf horn — belonging to Samsun on the second floor — will summpn anyone awake and who wants to be summoned.

Wand of Command allows you to command any character who wishes to be commanded.

Does anyone know how to pass those walls on the second and fourth floors, go to the ground floor and basement, or enter the room with deadly Knightshade on the first floor?

All in all, **Spellbound** deserves its Classic award.

James Stallwood,
Canvey Island,
Essex

CAN ANYONE help with the answer to the riddle which gets the lift working in Mastertronic's **Spellbound?** I have only managed to get into the lift room.

If you bring the lift down to the first floor and go into the library, you will find it has changed to the toadstool room. The next room on the right kills you with the deadly Knightshade gas.

Neil Porter,
Ipswich,
Suffolk

I HAVE found a bug in **Spellbound.** Firstly go to the roof and collect the wand. Now command any character to 'be happy' and then command them to 'wake up'. This will mess up the window containing the finger when selecting, and will leave pixels lying about on the playing screen.

F Squire,
Willand,
Devon

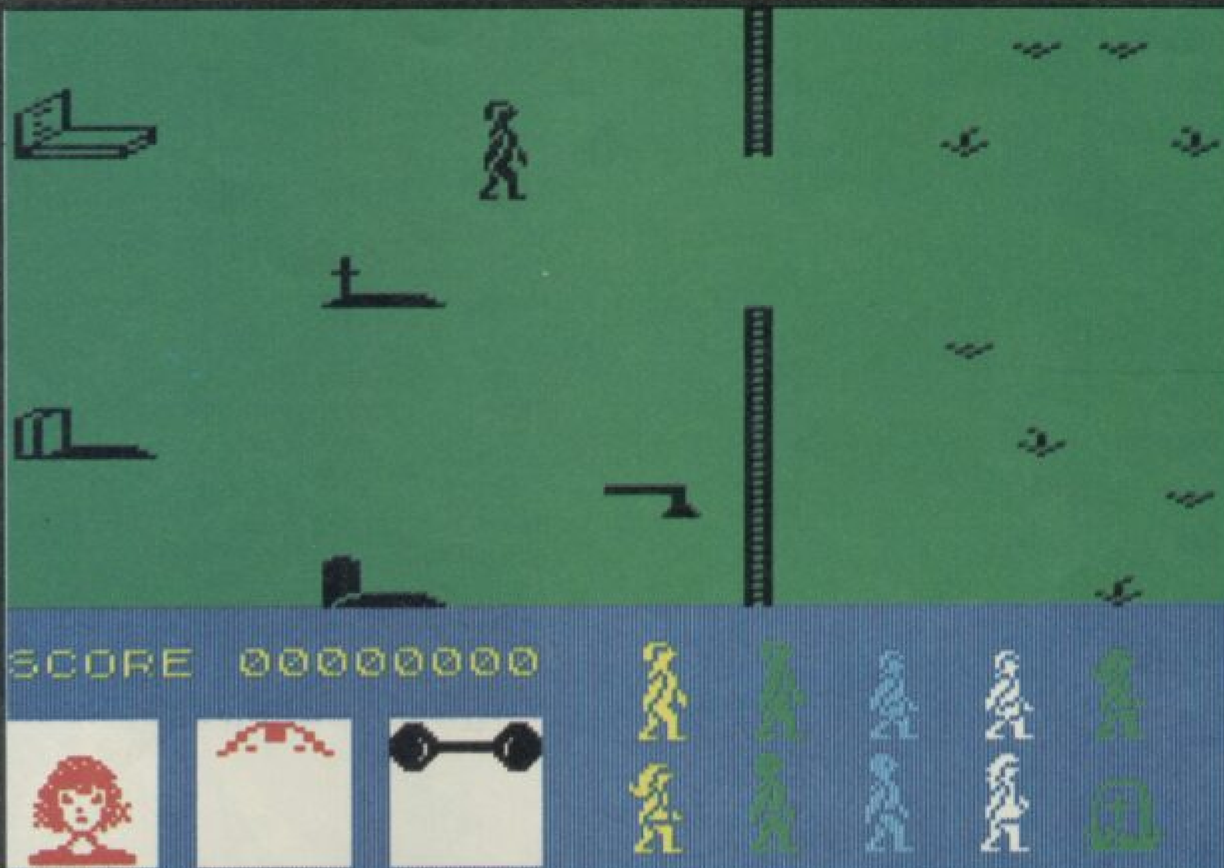

EAST
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SOFT ? WARE

★★★★★	Solid gold. Buy it
★★★★	Well worth the folding stuff
★★★	Pretty average. Buy if desperate
★★	Very poor. Probably over-priced too
★	A total rip-off. Complain loudly



FRIDAY THE 13TH

SANCTUARY, sanctuary from this awful game. Jason Voorhees has come back to reclaim his hockey mask and has an arsenal of weapons which seem to have come from Domark's only good product on the market, Gladiator.

Jason has just done a *Rambo* leap out of the lake at Crystal Lake Holiday Camp when you arrive. In order to give him the death he deserves, and splatter fans await with hot, sticky, lolling tongues, you must herd your friends to a place of sanctuary, get one of the weapons Jason has so kindly left around and kill him.

Before you get nine of the ten teenagers to safety you must create a sanctuary in the barn, church or library. Collect the Sanctuary Cross from the graveyard — at a holiday camp, you've gotta be kidding — and stand it in one of those buildings.

To warn the kids about Jason just pass over them. They will immediately go to the Sanctuary but — bites knuckles in terror — they will soon get bored and wander into the open where they are easy prey for the masked moron.

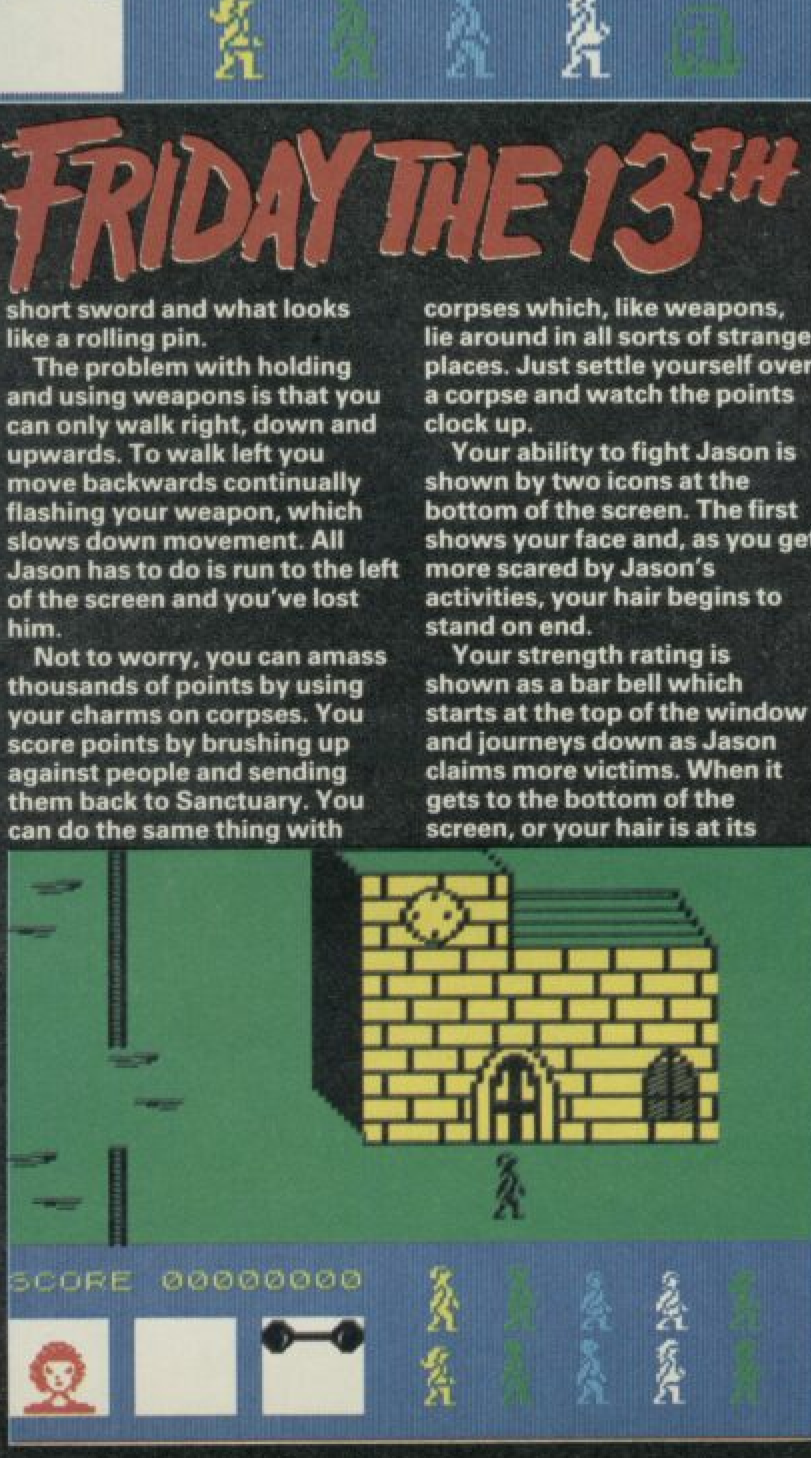
While all this is going on you should have picked up one of the many weapons Jason has discarded — (he's so careless). They include a chain saw, arrows, tridents, machette, short sword and what looks like a rolling pin.

The problem with holding and using weapons is that you can only walk right, down and upwards. To walk left you move backwards continually flashing your weapon, which slows down movement. All Jason has to do is run to the left of the screen and you've lost him.

Not to worry, you can amass thousands of points by using your charms on corpses. You score points by brushing up against people and sending them back to Sanctuary. You can do the same thing with corpses which, like weapons, lie around in all sorts of strange places. Just settle yourself over a corpse and watch the points clock up.

Your ability to fight Jason is shown by two icons at the bottom of the screen. The first shows your face and, as you get more scared by Jason's activities, your hair begins to stand on end.

Your strength rating is shown as a bar bell which starts at the top of the window and journeys down as Jason claims more victims. When it gets to the bottom of the screen, or your hair is at its uppermost, your time is up and you get the axe — that's another of the ten weapons in the game.



Domark seems to have turned the appalling graphics into a feature of the game. All the characters look the same and when they turn to face you they all look as if they're wearing hockey masks.

Sometimes characters get caught up in the nooks and crannies of the scenery. They struggle on matchstick legs to get through walls, fences and even trees and hay bales.

SOFT 2 WARE

The first signs of madness appear in a little window at the bottom of the screen in the form of a hockey mask.

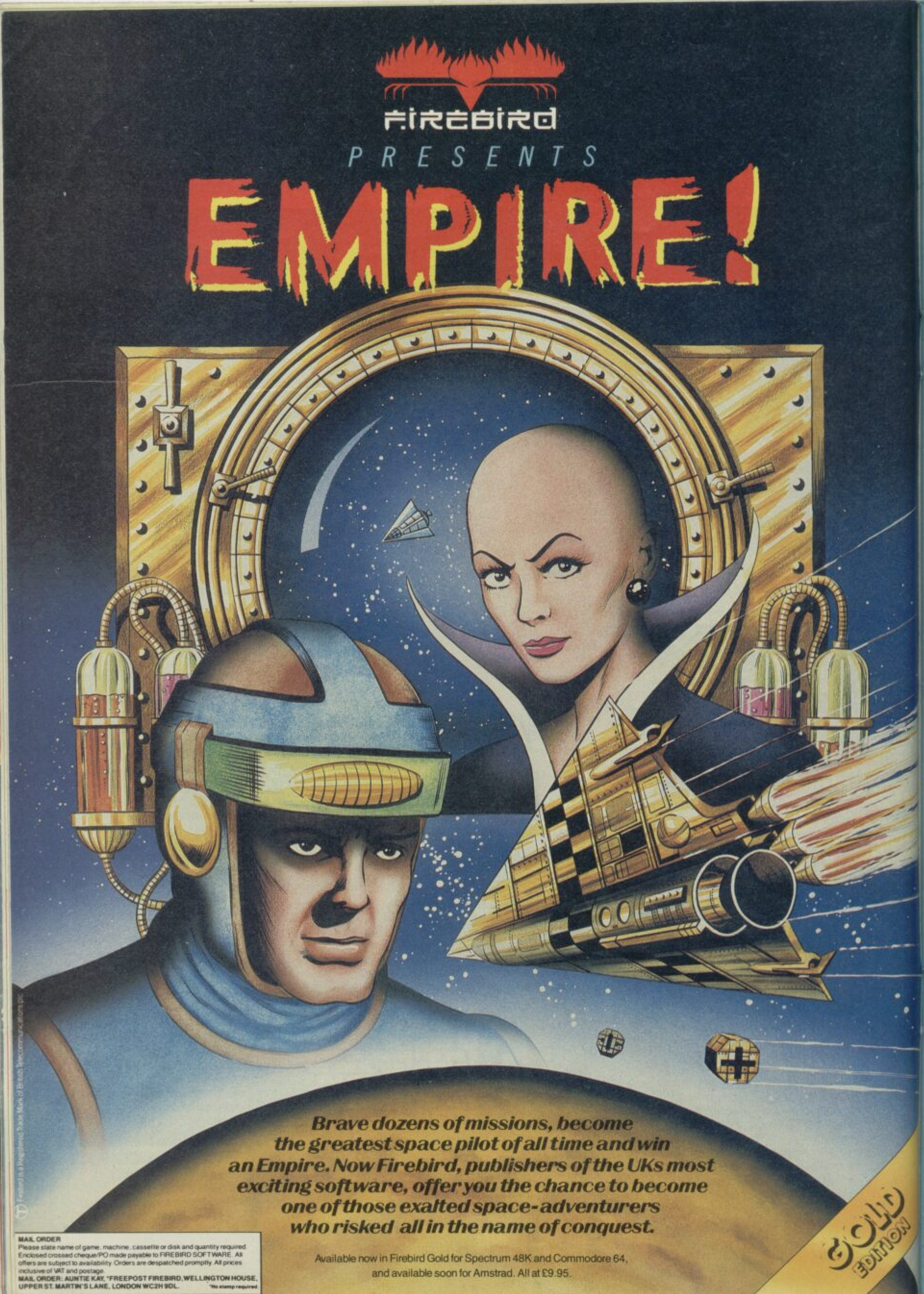
Yes, you too can be as wacky as Jason — who, I've just discovered, plays a mean game of baseball with people's heads. As the first part of the game progresses and the body count gets higher you slowly become insane and incapable of killing Jason. My suggestion, to stave off a visit to the funny farm, is to rip the tape from your data recorder and throw it in the nearest bin.

Before you do that, though, listen to the competition recorded after the game — it'll crack you up. There are ten horror sounds, all of which sound like the Domark programmers having their breakfast. I have some ideas as to what the sounds may be. There's the hiss of fried larynxs, the split of brussel heads and the gentle scraping of burnt fingers.

If that wasn't enough to have you in fits of vomit then suck on the blood capsules you get in the packaging. Domark says they contain red coloured sugar water. They certainly provide the highlight of a rather dim package and, unlike the game, they're frothy man.

Jason Gilbert

Perpetrator Domark
Blood money £9.95
Brains 48K
Hatchets Kempston, Sinclair
★★

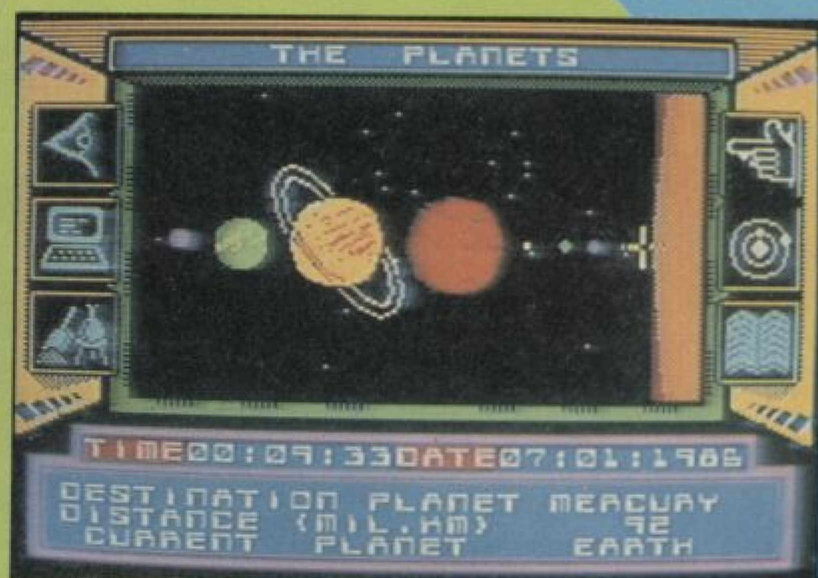


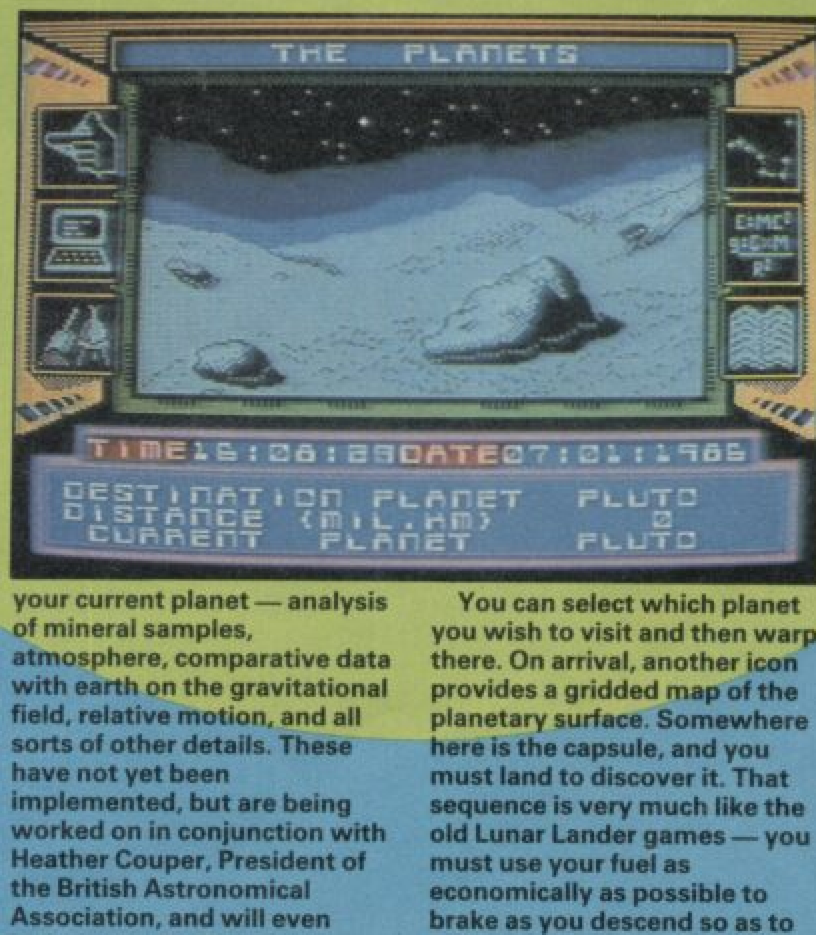
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SOFT PREVIEW 48K

The Planets







FORGET THE arms race, environmental pollution, inner-city deprivation or global war. Martech has dreamed up a real dilly of a future for the human race. Life is coming to an end and it's only 2007. A new ice age dawns, and it makes last month's freeze look like a holiday in Tenerife. In the middle of all the chaos an alien capsule arrives on Earth . . . with a map of the solar system and the position of eight other capsules, one for each planet.

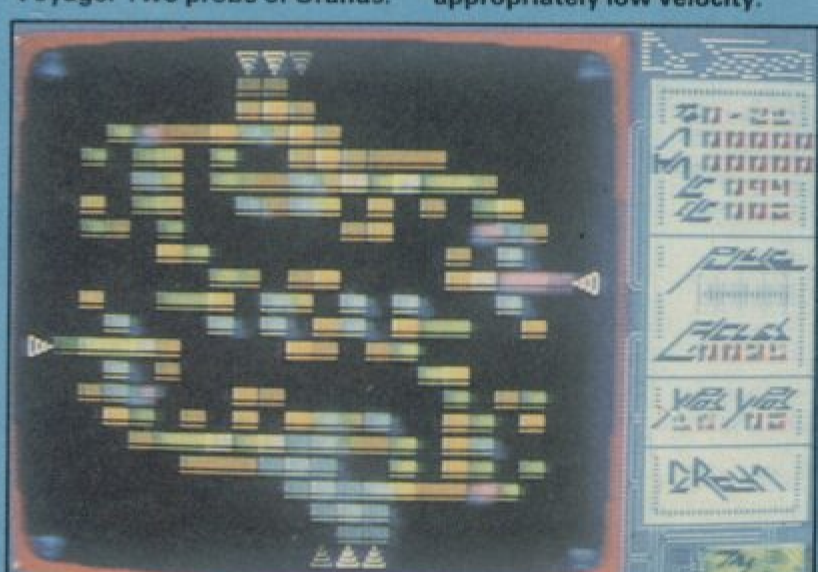
The Planets is a planetary quest to solve the riddle of the alien capsules before time runs out on Earth — maybe the secret will hold a last, desperate hope for humanity. And, as ever, a brave space pilot is needed to go out and look for the remaining capsules. You, buster. You.

It's a massive game, of which I've only seen a limited preview — but that's enough in itself to know that the final version is likely to be stunning. For a start, there are two cassettes. The first contains the control program for travelling around the solar system, and the second is an alien arcade game which completely fills up the 48K memory all by itself, according to Martech.

We have no details yet about the arcade game, but it will be linked to the solar system and, as you play, will provide clues to the main game. Likewise, the main game gives clues to winning the arcade game. That is probably wise — at the beginning Martech won't even tell you which keys to use.

The second tape contains details about planets, loaded in two at a time. An icon system allows you to select various screens of information about your current planet — analysis of mineral samples, atmosphere, comparative data with earth on the gravitational field, relative motion, and all sorts of other details. These have not yet been implemented, but are being worked on in conjunction with Heather Couper, President of the British Astronomical Association, and will even include details from the recent Voyager Two probe of Uranus.

You can select which planet you wish to visit and then warp there. On arrival, another icon provides a gridded map of the planetary surface. Somewhere here is the capsule, and you must land to discover it. That sequence is very much like the old Lunar Lander games — you must use your fuel as economically as possible to brake as you descend so as to reach the surface at an appropriately low velocity.

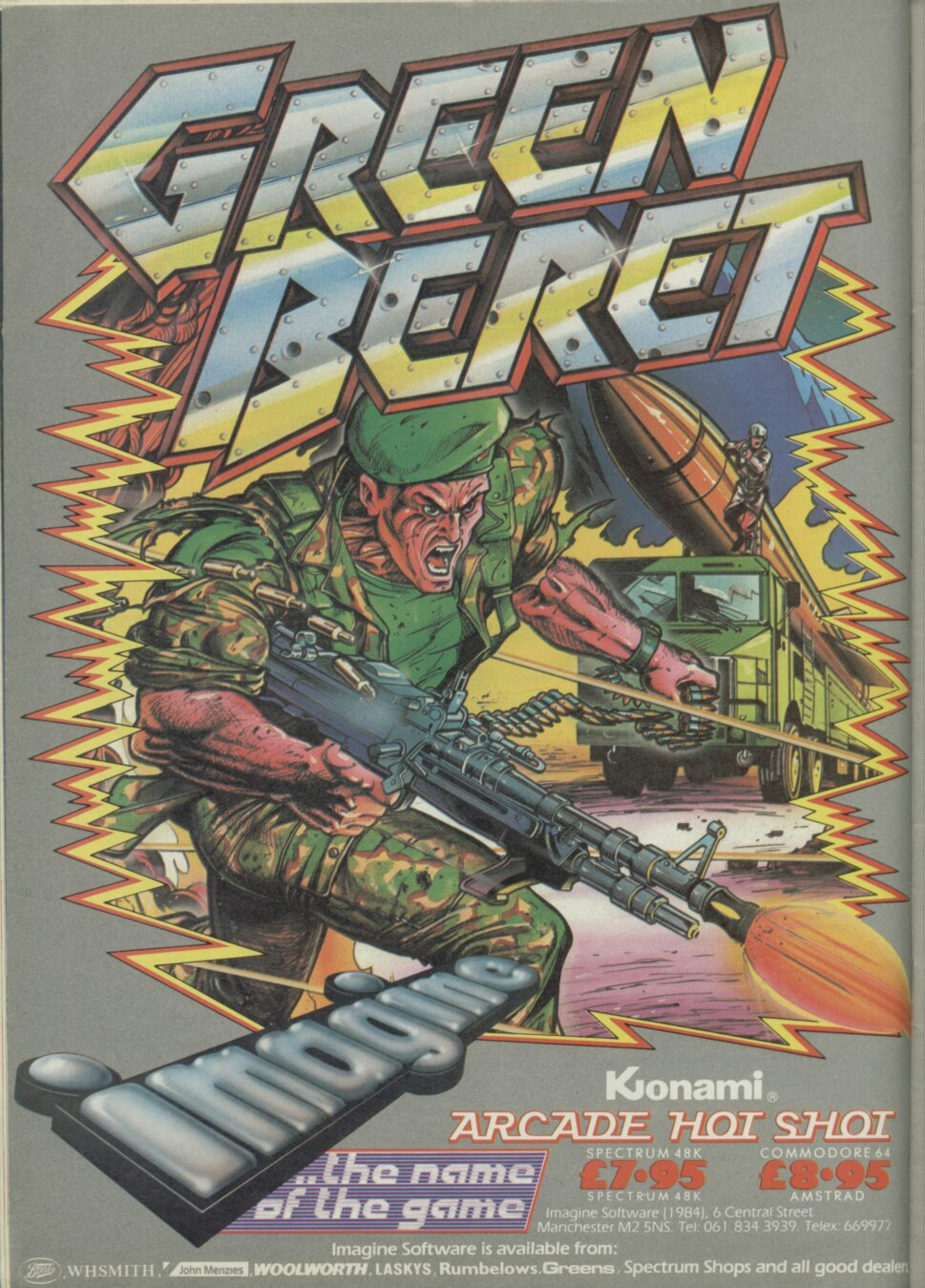


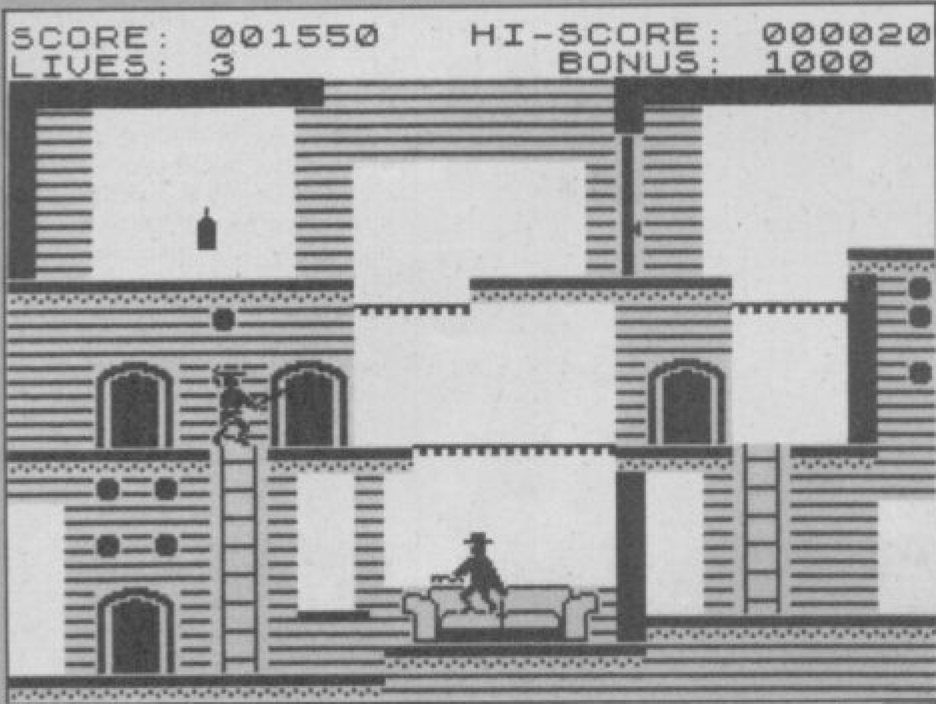
Planets with low gravity will be easier to land on than giants such as Jupiter, where you'll have only just enough fuel to land and then get back to the mothership. On returning, there's going to be a docking sequence, again requiring arcade skills.

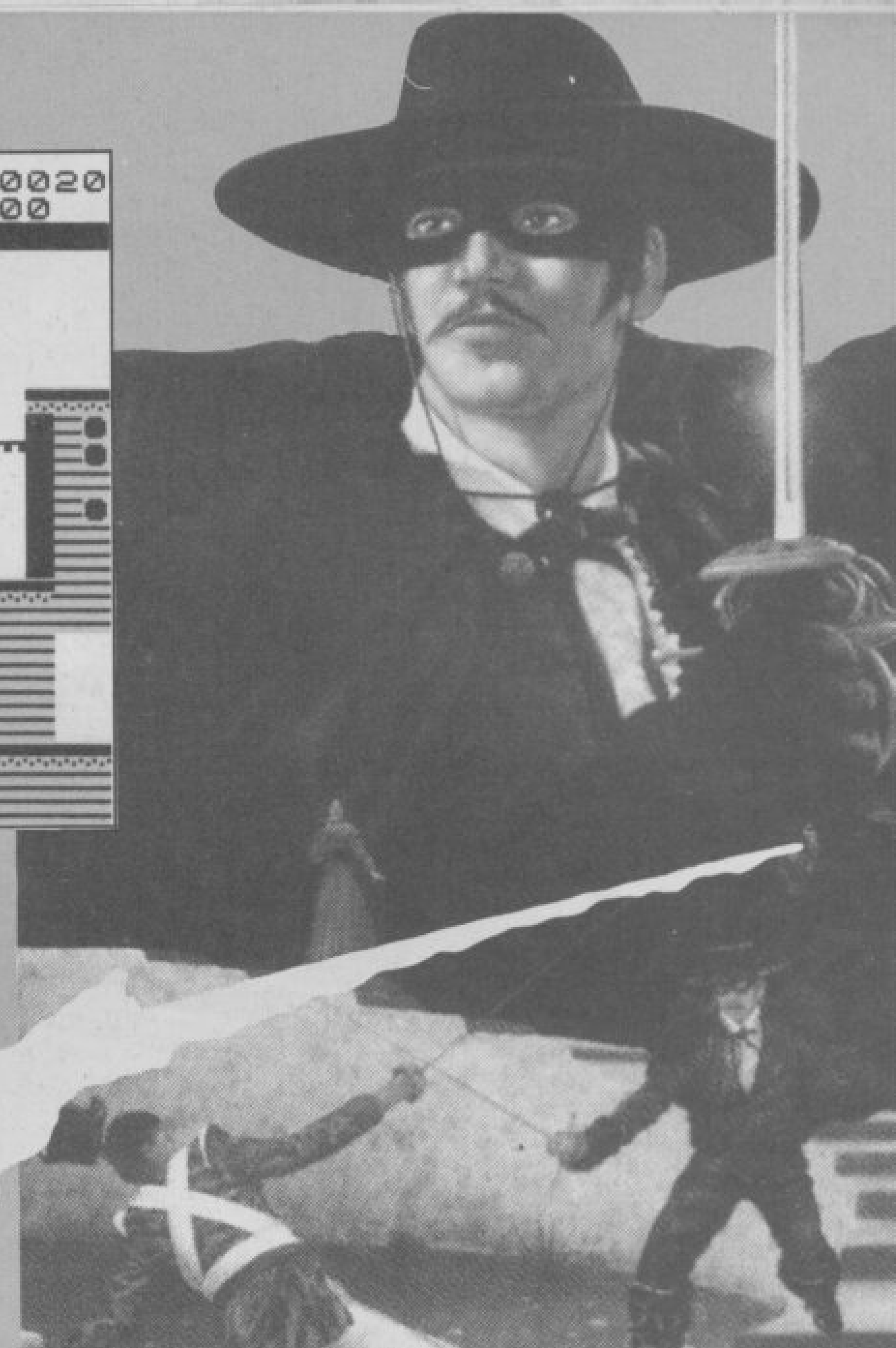
The capsules themselves provide cryptic information which, when pieced together, provide the complete solution to the mystery. But in order to decode them you will probably have to take into account all sorts of astronomical information about the planets themselves, as well as the clues in the arcade game. It's a mighty task, and Martech are planning a competition around it which will involve Heather Couper, a day out in London at the Greenwich Observatory and a high-quality telescope — the company is hoping to add further goodies to that as well.

The graphics are superb, from what we've seen. The planetary surface is picked out in great detail, and on planets with atmosphere and weather you'll get animated screens showing the effect of wind and even volcanic activity. Those will also be much more tricky to land on.

Space flight itself will also include arcade sequences with 3D meteors and asteroids to dodge when passing through asteroid belts and maybe ring systems. The whole package sounds tremendous and well in the forefront of the most advanced soft operas such as **Elite** or **Tau Ceti**. It looks as if Martech is on to a winner for once. Start saving your pennies, and watch this space for a full review, hopefully next month. *Chris Bourne*


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Zorro

BACK IN THE DAYS when the only attribute flicker was the flash of a hero's teeth, Zorro roamed the barbarous frontiers of Mexico, righting the wrongs done to innocent peasants by roguish soldiers.

The cut of his sword and his painful trademark — a Z slashed with the tip of his blade — were famous throughout the state but his aristocratic background was hidden behind a black mask. The authorities put a price on his head but the large peasant population aided his capers.

One soldier, Sergeant Garcia, set out to capture Zorro and stopped at nothing — legal or illegal — to catch his quarry and claim the reward. In US Gold's arcade adventure he has captured a pretty senorita and locked her up at the fort.

Zorro must battle his way through a series of screens, solving a puzzle on each to get to the maiden in distress and defeat Garcia.

He starts at the well outside the Ole 6 Hotel. Garcia struggles with the senorita on the balcony and a hankie flutters earthward. It is caught on the handle of the well and Zorro must collect it. There are several solutions to the problems and puzzles. For instance, movement between one partitioned part of the Ole 6 Hotel can be achieved by a climb and a jump or a bounce on the settee and a jump to the right. To gain height using the settee you must hold the up key down for at least 30 seconds. Then push the right key and Zorro will leap into the second part of the hotel.

From there he can go past the cemetery — which contains only one grave stone, a few crosses and a ruined church crawling with enemy soldiers — and onto the fort screen.

As you first get to the fort the drawbridge is raised and you are denied access to your love who waves forlornly from her prison cell.

Zorro is encouraged by the huge heart beating above her head — is this romance or horror? — and bounces off to the hotel, over the partition and onto the puzzle screens where the objects — including a useful key and a bottle of wine — can be found.

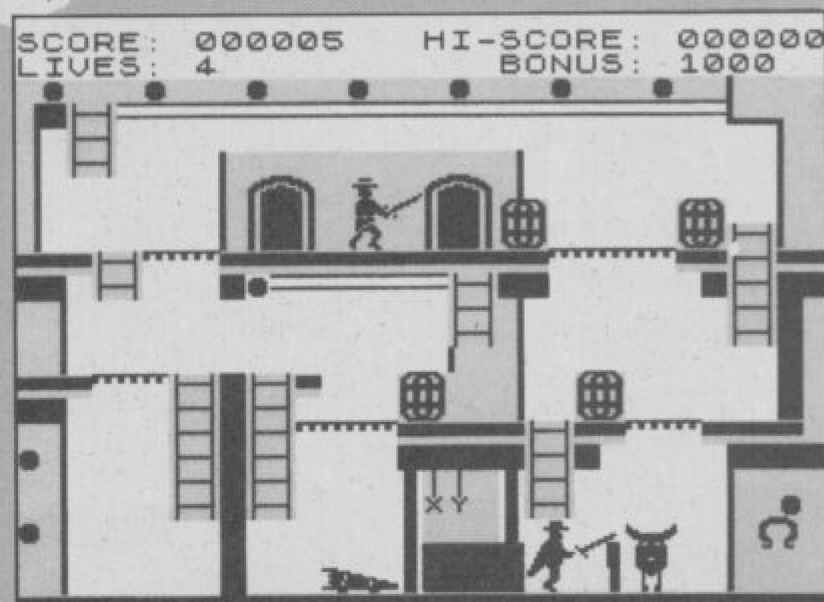
For some odd reason there is a bull in the livery stable. He stands guard over a lucky horseshoe. If you try to jump onto him and grab the object he will bounce you off his horns. You've got to be logical about the puzzles and branding the beast will make him more docile. All the equipment you need — forge, irons and bellows — are in the stable, so the solution should be easy.

There's also trouble underground which can be reached by one of a series of wells. Once past the balls floating on the lake — more bouncing involved there — Zorro must negotiate the catacombs and release a group of peasants who also have been imprisoned by the evil Sergeant Garcia.

Only after you have done all the good deeds can you rescue your love, and to make things more difficult Garcia's soldiers are after you. Between doing good deeds Zorro must fight duels with his sword, which is fairly frisky even when he's not in a fight.

Unfortunately, sword fights only deliver a paltry number of points. The big points are scored when the problems are solved.

Zorro is like **Jet Set Willy** with a sword. There are less rooms than the Willy game and the graphics are worse — yellow and black coupled with attribute flicker is not my favourite combination either.



The game also bears a resemblance to **Hunchback**, with its leaping hero and the Esmerelda figure who is the prize at the end of the game.

The problems in the game are not challenging enough and there are few surprises.

John Gilbert

SOFT 3 WARE

Publisher US Gold
Price £7.95 **Memory** 48K
Joystick Kempston
★★★

Benny Hill's Madcap Chase!



LECHEROUS, unsavoury and as usual vaguely pathetic, Benny Hill tries to beat Bruce Forsyth in seeing who can star in the worst computer game.

Luckily for Benny, Brucy wins; it would take something totally awful to beat **Play Your Cards Right**, and **Benny Hill's Madcap Chase!** isn't that bad.

The game is simple in the extreme, and play more or less consists of running from left to right and back again. Start off from Hill Street and the laundry basket, dash across a number of screens to a washing line, grab an article of clothing, head back to the start point and dump it in the laundry basket. You've now got 20 points.

It's one of the most pathetic excuses for a storyline I've yet to come across.

As you whip the unmentionables — an off-white bra and yellow Y-fronts — from the line you may well hear the pounding feet of a 16-ton Tessie in hot pursuit. This is one helpful neighbour who thinks you're nicking the knickers.

With her massive chest wobbling, she catches up and bounces into Benny. Splat! He hits the dirt, squirming, as she jumps up and down on his back. Eventually he staggers to his feet, a shaken man. But I could swear he winks.

If you are caught and jumped on while carrying some washing then it goes straight back to the line and you'll have to try again.

There are another two levels played in the same way with different objects to collect. You can only move to the next level when you have transferred all the articles.

The second level involves scrumping. This time it's the farmer chasing Benny as he relieves the apple trees of their fruit for Mr Bramley. Picking up jumble for Mrs Bargin is the third and final task.

Benny can jump three paces into the background allowing him to dodge irate members of the public and bits of 'street furniture', as the cassette inlay so charmingly puts it.

Street furniture consists of lampposts, telephone boxes, road works on the first level, barbed wire fences, a chicken coop, barn and trees on the second level — and I didn't manage to reach the third.

Each time Benny makes a turn from one end of the game to the other, he finds that lampposts have moved, one-way signs have jumped behind walls, trees are uprooted and wire fences have been rearranged. Crash into any of these bits of furniture and you'll bite the dust and lose two points. However, two points is a better deal than the five you'll lose if big Bertha stomps on you.

When you've got used to the perspective, you'll find it an easy matter to judge the distance Benny should travel into the screen to dodge the objects, and he can switch from the foreground to the background while on the run.

It is easy to detect the hand of programmer Don Priestley, author of **Popeye**, in the graphics. As in **Popeye**, they are large and colourful, but unlike its predecessor, the animation is fast and smooth, and the masking extremely effective. Benny trots around with an amusing high-stepping gait — and manages to look like a right ninny. To give Don credit, he is instantly recognisable as Benny's alter ego, Fred Scuttle.

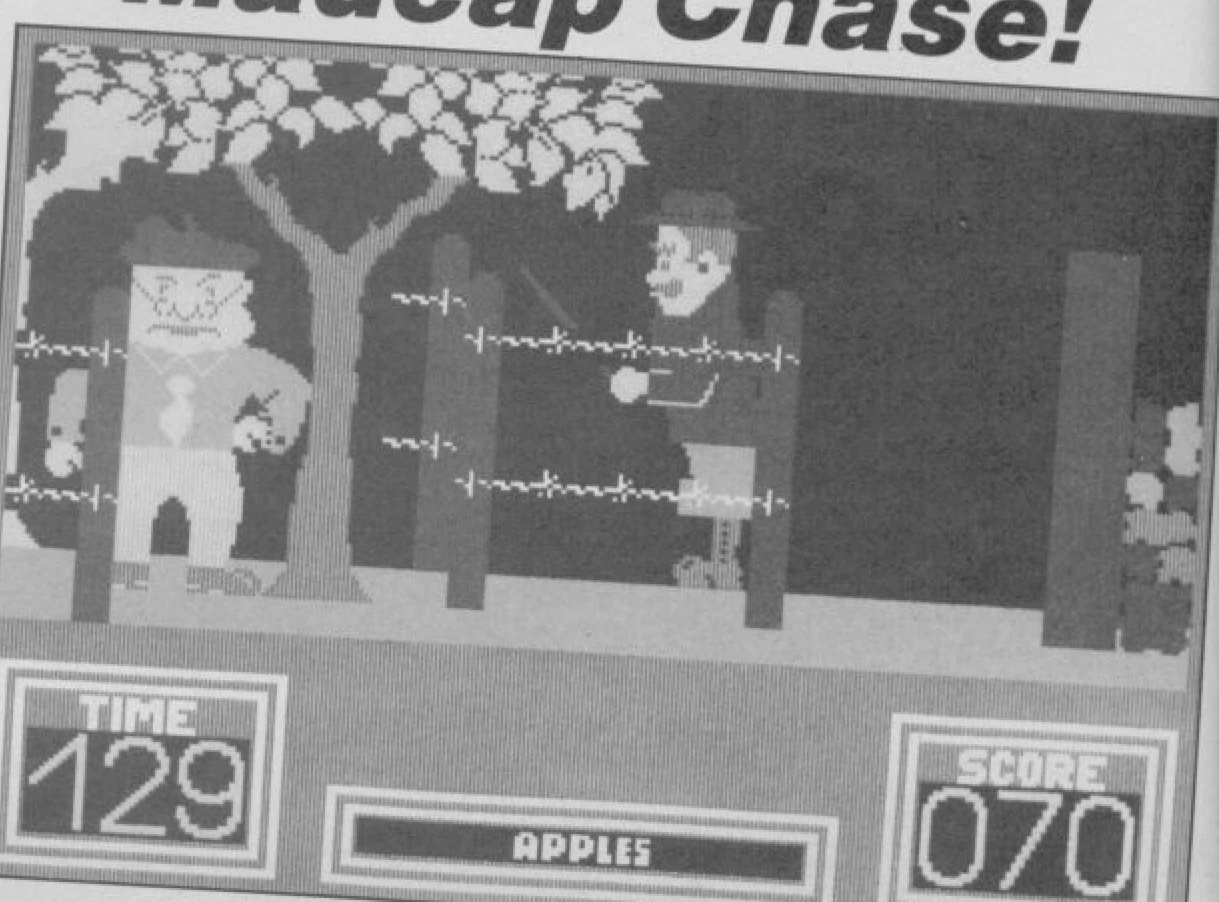
It's typical of the seaside postcard humour of Benny Hill that when he's jumped on by the woman her skirt flies up to reveal knickerbockers, her wig almost leaves her head and her face is contorted in a grimace.

Each level increases in difficulty, not in gameplay which remains the same, but in judging the positions of the furniture. Most tricky are the barbed wire fences, which tend to be a little fuzzy.

It's a pity that the story line is so simple and the game so limited. **Benny Hill's Madcap Chase!** has a very small playing area and to be honest, not a lot happens. If it weren't for the graphics, this game would receive less than the three stars it is awarded. *Clare Edgeley*

Publisher DK Tronics
Programmer Don Priestley
Price £6.95 **Memory** 48K
Joystick Kempston, Sinclair
★★★

SOFT 3 WARE



Spitfire 40

I SAY CHAPS, Jerry's zooming in with his *Donner und Blitzens* and *Englisch Sweinhunds* and all that tosh again.

It's chocks away time, angels at seven, bandits at nine, don't prang the kite it's the only new one we've got Algy old boy, cripes, did you see the legs on that WAAF dakka-dakka-dakka I think the Wingco's bought it, OK, that's enough jargon, let's talk about the game.

Spitfire 40 is the name, Mirrorsoft is responsible for flogging it and you get no prizes for guessing it's set in the Battle of Britain. In fact what we have is a rather handsome flight simulation with combat sequences.

Attention to detail is impressive at first. When you load up you choose your pilot's name from a list of five. This seems dodgy. I'm not called Smith, Jones, Mackenzie, Marcel or Bolesky. On the other hand, I'm not a Battle of Britain fighter pilot. Let's choose Marcel, vive de Gaulle and up the Free French.

Marcel's details — no missions completed, no medals, no kills, no flying experience — are entered into a logbook on-screen. When Marcel proves himself this logbook gets updated and you can save it for later games.

There are three modes of play — practice, combat and combat practice. Combat is the main game where you are set a mission to complete. Practice is basically there for landing and take-off, and combat practice is equally obvious. Marcel is going out on a practice flight.

The screen display shows the controls of the Spitfire in excellent detail, concentrating on rather old-fashioned looking dials and some grubby shading round the edges, giving a good impression of what the real thing must have looked like. The first thing you'll notice, especially if you're a flight simulator fan, is there's no view of the horizon or landscape. Where's the window?

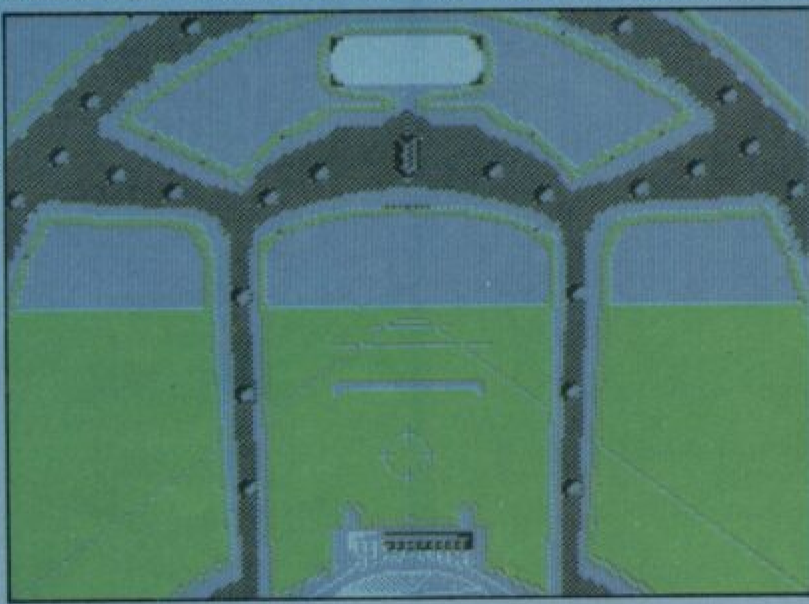
The window is got by pressing Space. You see the full view from the cockpit but lose all your instruments. Gunsights are there, and some dots at the bottom which are supposed to indicate altitude and speed, but those are very difficult to interpret.

The switching between controls and view is the major drawback of the game, especially when coming in to land — you must use the view to check your course for the runway, but you'll need the controls when you're just about to touch down. It's easy to be on the wrong screen and crash through not knowing what you were doing. It's the price of that great display of dials, but is it too high a price to pay? Let's see how Marcel gets on.

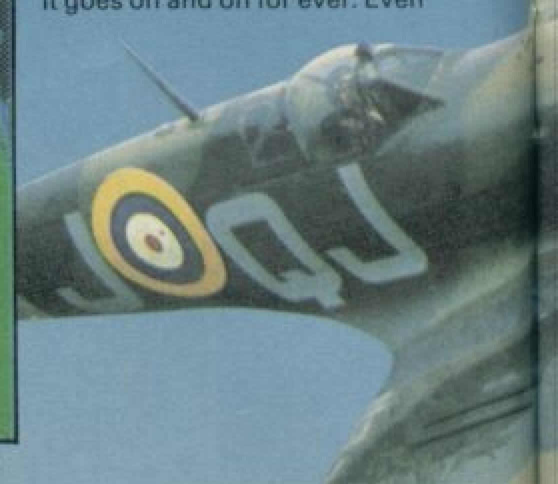
Taking off is dead easy.

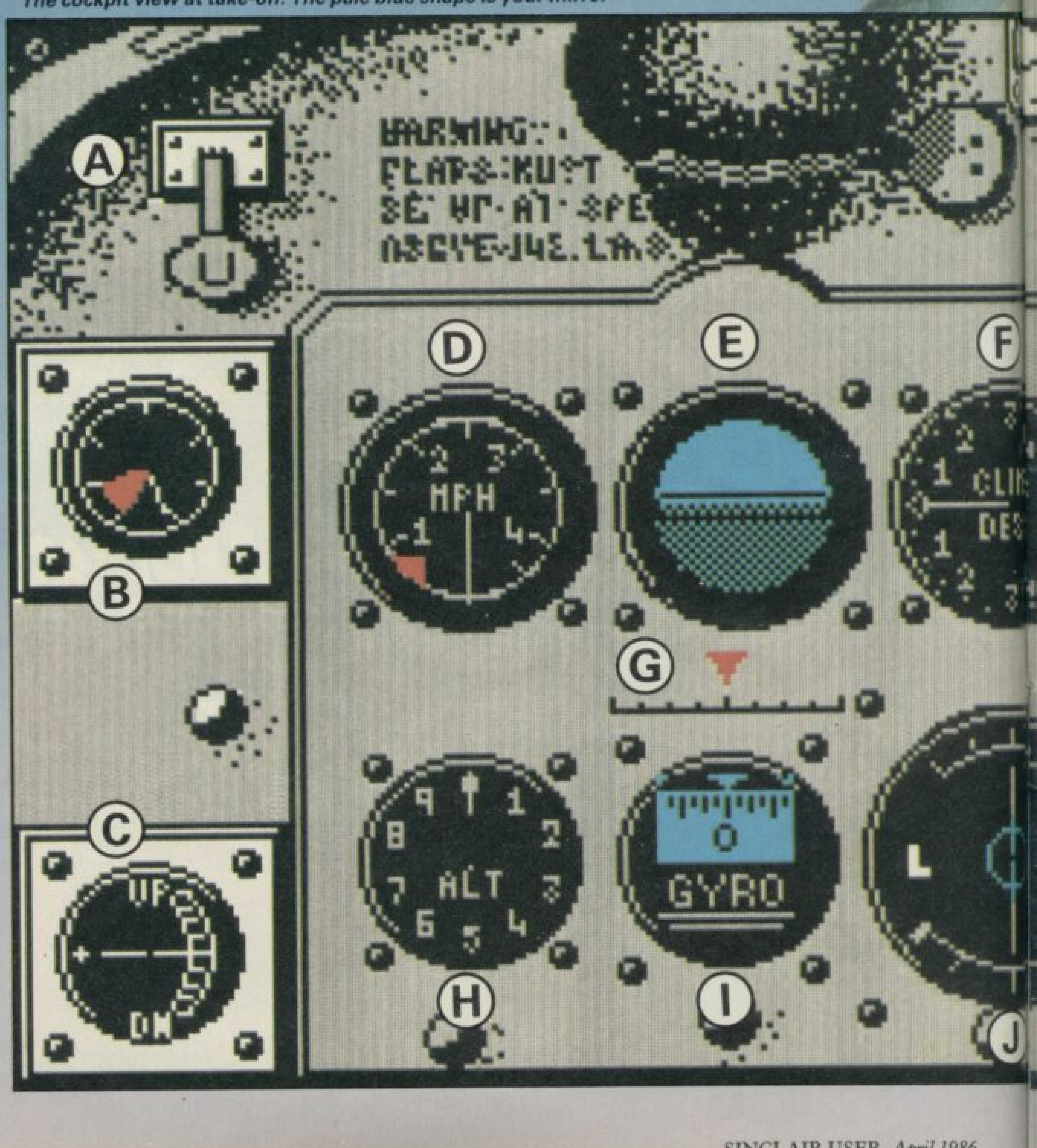
You increase throttle to 1800 revs, let the brakes off, increase power again to 3200 revs and when your speed gets to about 100mph lift the nose up and you're off. Marcel can do this in his sleep, although it's quite easy to find the Spitfire violently bucking when the undercarriage is raised or the flaps down if you're not careful about the speed. Luckily Marcel has read the useful booklet with all its tips on correct flying.

Marcel is now climbing steadily over the beautiful patchwork fields and rolling downs of Kent. All he can see from the cockpit, however, is a completely flat blanket of green. It goes on and on for ever. Even



The cockpit view at take-off. The pale blue shape is your mirror







the English Channel is green. Luckily Marcel doesn't get seasick.

The Spitfire has, of course, no radar. Our French hero doesn't mind this, because it wasn't invented at the time. This means there's no navigational equipment like you get on modern-style aircraft, and you have to fly entirely by judgement and sight. In order to find out where you are going, look at the map.

The map shows an area of Southern England with three big rectangles on it. Those contain three airfields, and some other surface detail, and if your aircraft is in one of them you can magnify it. Marcel has a quick look and notices some blue shapes marked on the map. Unfortunately, when he flies the Spitfire very close to have a look through the cockpit, they don't turn into anything except bigger blue shapes.

The runway looks OK, but as for the rest of these details, they don't really seem worth defending. Let Jerry have them, thinks Marcel, and promptly crashes into a large blue triangle. Mr Churchill is not amused. Black mark, de Gaulle.

Flight Officer Mackenzie — our second guinea pig — decides to skip the practice routine and go straight into combat. This is much more fun. He receives a direction: Bandits 4, Intercept 11, Bearing 253°, Height 5,000'. That means there are four German fighters, 11 miles away, nearly due west at the given altitude.

Off he goes in search of glory.

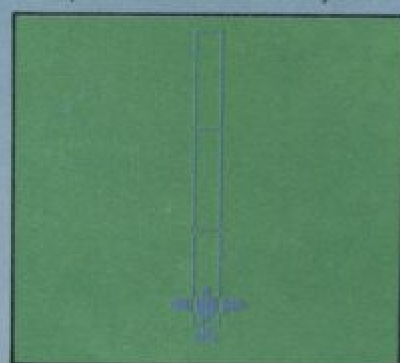
Height is very important in combat. The traditional way to do things is to get above your enemy and behind him, then come screaming down in a furious pounding of cannon and blow him into little bits. Even better, come out of the sun so the poor sod can't even see you before he's roast pork and mostly crackling. War is not romantic, whatever you may think of Biggles.

Spitfire 40 doesn't simulate the sun, but the enemy certainly does its best to get on your tail, and once there is hard to dislodge. Mackenzie discovers a most spectacular way of getting out of trouble — looping the loop and doing a half roll at the top of the loop, then pulling out of the dive before completing the loop.

That brings him hurtling straight down at the enemy, and surprisingly, he manages to pull out of the dive just in time to meet another Messerschmitt or whatever on the horizon.

Dogfighting is good fun. The enemy planes are small and stay small, but that's all to the good as they present a more difficult target. A mirror above the cockpit view shows an enemy fighter if there's one on your tail, and if you don't shake him fast enough your glass windows will be peppered with bullet holes and your flying jacket becomes distinctly ragged.

It does seem to be much easier to shoot down planes when coming in from behind, but that's hard to assess in the hurly-burly of combat. The most exciting part of combat is the way you have to fly on vision alone — there's no time to flip screens and check your dials. What is a drawback on landing therefore becomes an advantage in fighting.



Maximum magnification on the map — the Spitfire is lined up on the runway

Unfortunately, Mackenzie, having destroyed his four bandits, fails to make it to the runway at the right height and attitude and consequently gets posted missing in action. There won't be a dry eye in the WAAF's mess tonight.

Jim Gregory and his pals have done a good job for Mirrorsoft in re-creating the atmosphere of the Battle of Britain. The concept of saving your record in order to progress in rank and glory is a good one, and the instructions state that life gets more difficult as you move up the promotion ladder — landings have to be more precise and so on.

In fairness to the lack of detail on the landscaping, there are a lot of features not included in standard flight simulations which clearly eat up the memory. It would have been nice however to see something more interesting than little blue shapes on the ground, if only some patterns of dots for field boundaries and roads.

The controls are suitably responsive for such a manoeuvrable aircraft, and there seems to be little you cannot do in the way of aerobatics. The alternative screen system has its drawbacks, but does at least provide an excellent array of instruments when in that mode, uncluttered and realistic.

Not quite a Classic, then, but definitely Mirrorsoft's finest hour. *Flight Officer Chris Bourne*

Publisher Mirrorsoft
Price £9.95
Memory 48K
Joystick Kempston, cursor, Sinclair
★★★★★



A Flaps lever — up or down
B The fuel guage
C The attitude of the aircraft
D Speed in miles per hour
E The horizon. Enemy aircraft do not appear on this, but only with the cockpit view.
F Rate of climb or descent
G This indicates your angle of banking
H Altitude in hundreds of feet
I The gyro shows the bearing on which you are flying
J The top arrow shows your rate of turn, and the bottom the rate of sideslip, left or right
K The revs are shown in hundreds. Sudden changes in throttle power tend to have alarming effects on stability of the aircraft
L Undercarriage indicator
M Brakes — either on or off
N The oil guage measures how much you overheat the engine





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Skyfox



WOULD I like to fly one of these for real? Fly one of what? A Skyfox fighter — that's what!

Just crank up the auto-pilot and sit back until you're in the combat zone then zoom around at 200 mph, dropping to six feet above the ground, blasting alien tanks. Then up to 36,000 feet to take pot shots at enemy aircraft. Hell, you can even run the thing into the ground with impunity! The worst you get — on the lower levels, at least — is a message on your hi-tech



console, warning you to take off again before you start collecting parking fines!

But flying a Skyfox for real is unlikely because despite its surface trappings of being a combat-orientated flight simulator, **Skyfox** is really unreal — a strange amalgam of all the military fetishist's wet dreams and a dose of sci-fi.

The graphics suggest nothing so much as Middle Eastern conflict wth the rocky desert landscape and crawling tanks, and the jet fighters are undoubtedly earthly looking, but still the instructions talk about motherships, aliens and home bases. So don't expect a **Fighter Pilot**; let the computers in your plane and at home base do the navigating . . . and settle down to a good bit of blasting action.

First though, ignore the instructions reference to a multi-part load for different missions. It's an error to be grateful for, as the game is complete without delays for further sections of code. Secondly, while loading, search for the keyboard direction instructions. They sure weren't on our copy, so for those without a Kempston or Sinclair joystick to steer the machine, left is J, right is K, pull back on the stick is M and push forward I. And now you're ready to take on those reds, be they Martians or of a more terrestrial kind.

First the menu, which comes zooming down out of the sky into your cockpit. As well as your level — there are five, from the forgiving Cadet to the ultimately testing Ace of the Base — you choose the scenario. Recommended is Tank Training, which lets you zoom around at crop-dusting height but at 200 mph.

Here you'll get your first taste of how good the graphics are in this game. Though the approach of the tanks looks rather stepped, they're well drawn, shaded monochrome sprites. There are some nice sound effects as well, though as always one wishes the hardware could give them more volume.

At this easy level your flying will concentrate almost solely on turning and keeping as low as possible without scraping the ground. You may wish to accelerate away then dive back in, but that's slightly less than convenient — plus and minus are the speed controls, meaning you have to use symbol shift too.

Once you tire of this you can move up to Tank Training Two. Now the tanks are spread across the map and you'll need auto-pilot to take you from area to area. Not that pressing A will give you problems — it's just that you have to be ready for action immediately you begin to slow down from mach two.

There are three Plane Training Scenarios. The first one has that ever-handy auto to put you on the tail of the enemy — blast them quickly or they'll soon turn the tables. You'll need to be even quicker in the second scenario as they're coming straight at you, while the third presents a pattern spread around the map.

You'll find air combat calls for somewhat different flying techniques and much more dependence on your radar's vertical scan, which toggles with an overhead view. There's also a chance to use your missiles — you're equipped with limited numbers of both heat-seeking and guided. Arm them with the respective initial key, target the enemy, then let fly. Once again the sprites are effective, with an exciting sense of high speed jet combat.

Other practice modes introduce you to high and low combat, flying through a dead zone of clouds to take out forces on the ground and in the air, but by this time you'll be hungry for some real action — and **Skyfox** offers everything from a small invasion to a massive onslaught, where you'll have to face up to six motherships whch you'll need to destroy before they launch even more tanks 'n' planes towards your base.

It's here that the real strategy appears. Using the base computer map you can check up on the position of the enemy so that you can defend your weak spots. The auto-pilot may still be useful but you'll also need human judgement. You'll also find yourself running out of fuel as you alternate between high and low combat, or using the power hungry afterburners for quick thrust, which means landing at your base to refuel and repair shields. Again this calls for instrument navigation. If you need to know the details of a map square, there's a handy zoom magnification facility.

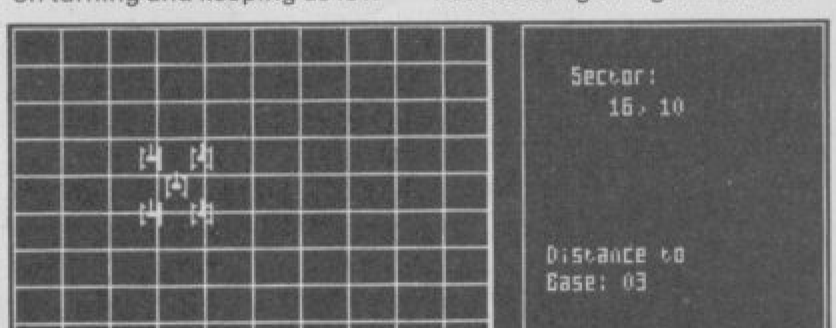
SOFT 4 WARE

Every so often a 'Launch Detected' message will flash up, which means that the mothership has sent out a bomber against your base. Intercept it during its run if you're to stay in the game. And if all that hasn't been enough, there are five special strategy attacks with multiple motherships to keep you on your toes.

There you have it. **Skyfox** isn't as complex to control as **Fighter Pilot** but that means it's a lot easier to get into and there are many thrills on the way. Apart from one or two complaints about control, such as the need to use shifted keys and a slight tendency for too fast a repeat, it's an exciting shoot 'em up that gets the adrenalin pumping. And real or not, I don't care who the enemy is . . . just let me at 'em!

Jerry Muir

Publisher Ariolasoft
Price £8.95 **Memory** 48K
Joystick Kempston, Sinclair
★★★★



Yabba Dabba Doo





YABBA DABBA . . . Ooh dear! What are the Flintstones doing in a computer game? And one which makes them look like a right load of brontasaurae?

Yep, Fred, Wilma, Dino and Co have made their debut into the world of high-tech programming and low-tech graphics. Join the happy gang and help Fred build Bedrock, the boulder-strewn habitat of the stone age knuckleheads.

The story line is simple and predictable. Clear the site of pebbles and build Fred's house before the Rubbles and other neighbours can build theirs. Then find Wilma and persuade her to set up home with you.

According to the cassette blurb, Wilma tends to hang around the Drive-in or Burger Bar. She seems to appear at random and is likely to crop up in almost any of the 35 screens. She's a bit like a can of Heineken — give her a kiss and you'll regain your strength. A pulsating heart then appears — the harder it pumps the more likely she is to run home with you.

Anyway, there's no point worrying about Wilma in the early stages because your first priority is the house. Clearing the site of small pebbles is a frustrating and thankless task. Pick up a pebble — two if you can manage it — walk into the next screen and chuck it into the pit. Repeat this seven or eight times until the area is clear.

A pterodactyl flies across regularly, dropping pebbles and boulders on Fred's head and the surrounding area. Just more mess to clear up.

Now collect the boulders and take them back to the homestead. If you place one in the right position a section of the house will appear. You'll have to travel far and wide to collect the rocks — that means over five levels in depth and seven screens in width. If you can find your car, you'll then travel faster. Dodging the various hazards, including the turtle, rolling rock, pterodactyl and the occasional dinosaur, will then be easier.

Eventually Fred reaches the roof building stage and has to hire a dinosaur with a scaled back to allow him to walk up to the roof — rather like a staircase. But before he can enter Dino-hire he must earn some cash down at the quarry — a dollar sign appears when he has earned enough. For a few seconds after collecting the cash Fred is immune to the life-sapping ankle-biting turtle, and the other prehistoric perils.

Before the house is complete Fred must meet up with Wilma as often as possible to get the heart — in the right hand corner of the screen — pumping like the clappers. Only when it looks as if it's about to explode will she return home with him.

Travelling through the screens is innovative, if confusing. To move up to another level, stand in one corner of the screen and push the joystick diagonally upwards. To move to another screen on the same level, stay away from the corner of the screen and stick to the centre.

Bet you think these graphics don't look too bad.
Just you wait until they move . . .



One sure way of telling which level you're on is to look at the stone wall which runs through each screen. If it's very large, you've moved into the background and near the hills. If the wall is a thin line, you're in the foreground.

The scoring system is suitably neanderthal. There are two stone slabs with birds pecking at them. The top slab represents Fred's energy level which Wilma can increase with a kiss, the bottom slab shows how many times he's been bowled over by a nasty. When the bird eats the stone, Fred loses a life.

Surprisingly — given the relative success achieved by others in re-creating cartoon characters on the Spectrum — the least attractive feature of **Yabba Dabba Doo** is the graphics. Colour and scenery are flat and unadventurous — blue sky, green hills and yellow foreground. That's it.

For the most part any masking routines are non-existent — Fred, Wilma and the rest of the brainless gang run around, transparent figures which merge in an unholy mess of squiggly lines when they collide or pass one another. When a half-hearted attempt at masking is found — when, for instance, Fred passes in front of the wall — it's so clumsy you wish the programmers hadn't bothered.

The press blurb which accompanied the game brazenly informed us that the graphics on the Commodore 64 version 'have been faithfully translated to the Spectrum and are truly remarkable'. If that's so then Yabba must have set a new low for Commode graphics.

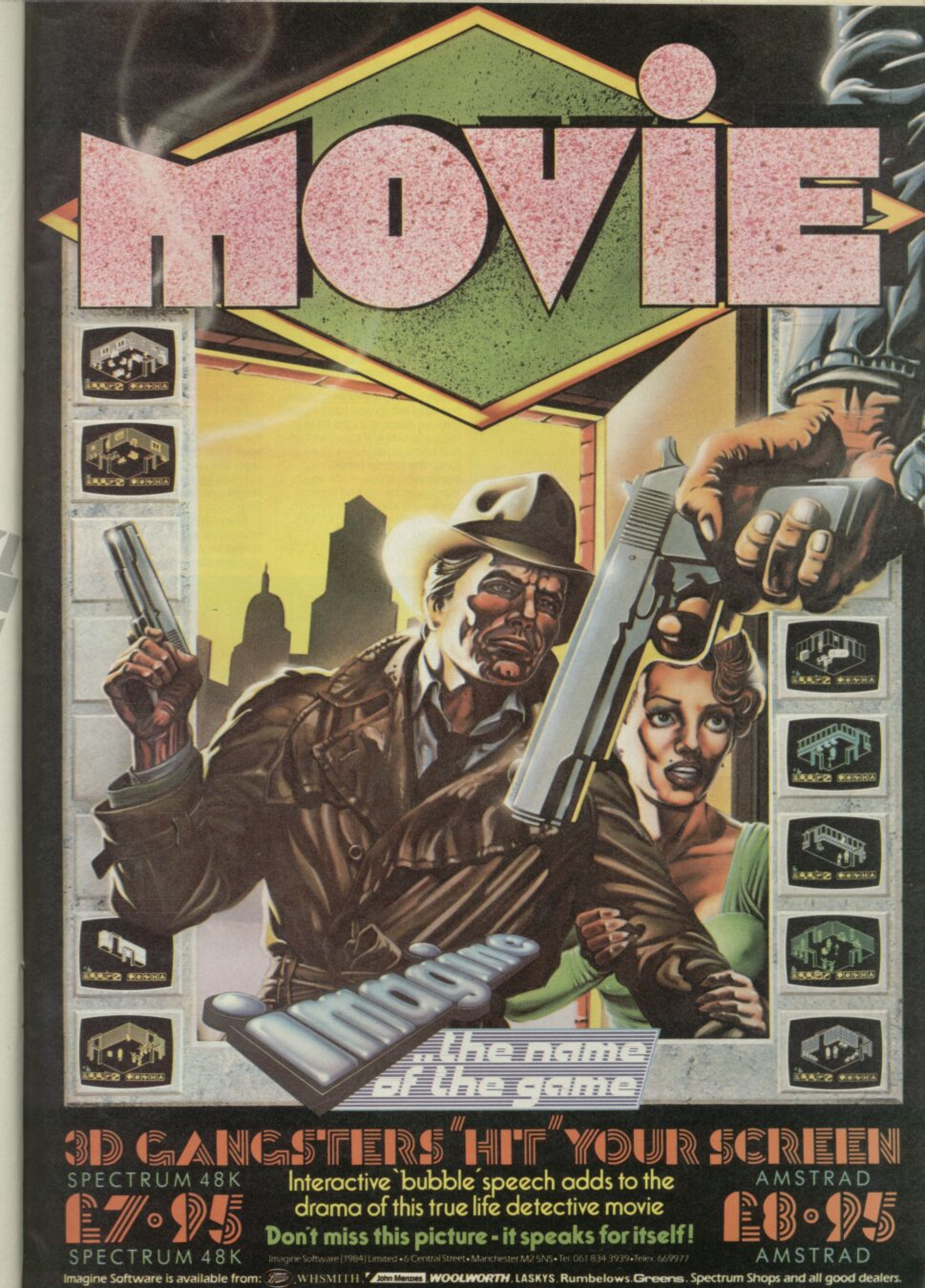
Actually, we have it on good authority that the C64 graphics bear very little resemblance to those on the Spectrum.

Still it is truly remarkable that after **Knight Lore, Popeye** and **Three Weeks in Paradise** Quicksilva still thinks it can get away with charging £7.99 for this.

Clare Edgeley

Publisher Quicksilva
Programmers Taskset
Price £7.99 **Memory** 48K
Joysticks Kempston, Sinclair
★★

SOFTWARE 2


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Show Jumping

SHOW JUMPING is one of those sports which hasn't been over-exposed on the Spectrum. Maybe that's because there's no equivalent in the amusement arcades, or perhaps software houses think show jumping is just for the girls, and not worth bothering about.

Anyway, Alligata has more than compensated with a fine simulation which should have you on the edge of your seat during the jump-offs and your family imitating the strangled tones of horse-loving commentators.

You can play on your own or with up to eight people in a grand competition. The solo version is really a training mode, starting with easy courses and building up to the more complex arrangements of the competition courses.

Although the screen is dull in comparison to some of the more spectacular sports simulations, the animation of the horse and rider more than makes up for that. Alligata claims around 190 different positions for the horse, and the result is very realistic, particularly when you jump a fence. The horse leaps up effectively, the rider leans forward and the back legs kick as it clears the fence.

Control is nevertheless easy, with left and right turning the horse, up and down accelerating and decelerating, and fire for jump. Your turning circle is naturally larger if you are cantering than if you are at a standstill.

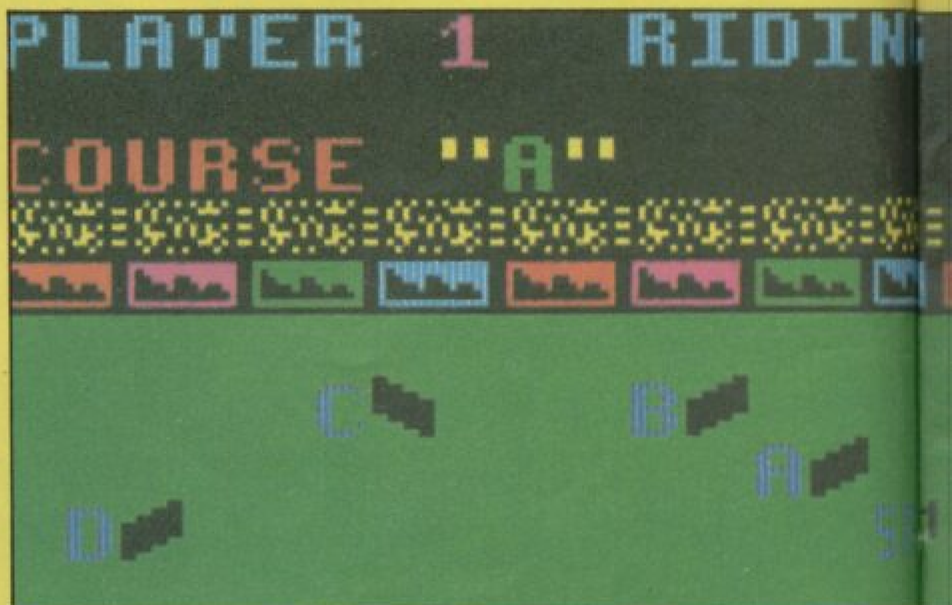
The essence of show jumping is that the horse does the jumping while the rider guides the horse, and that is what happens in the Alligata game. The easy part is getting over the fence. The difficult part is making sure your horse is in the right position and moving at a reasonable speed to give it a chance.

The course is spread over four screens, and before you start you are shown a diagram of the fences and the order in which you must jump them. When, at the difficult level, you have to remember ten or more fences, that in itself is a major problem. Each fence is lettered and the letter flashes to indicate the next fence, but you also have to remember from which side to jump it. If you can't visualise the position of fences off-screen, you are also likely to find yourself coming in at quite the wrong angle, and may even crash into one by mistake.

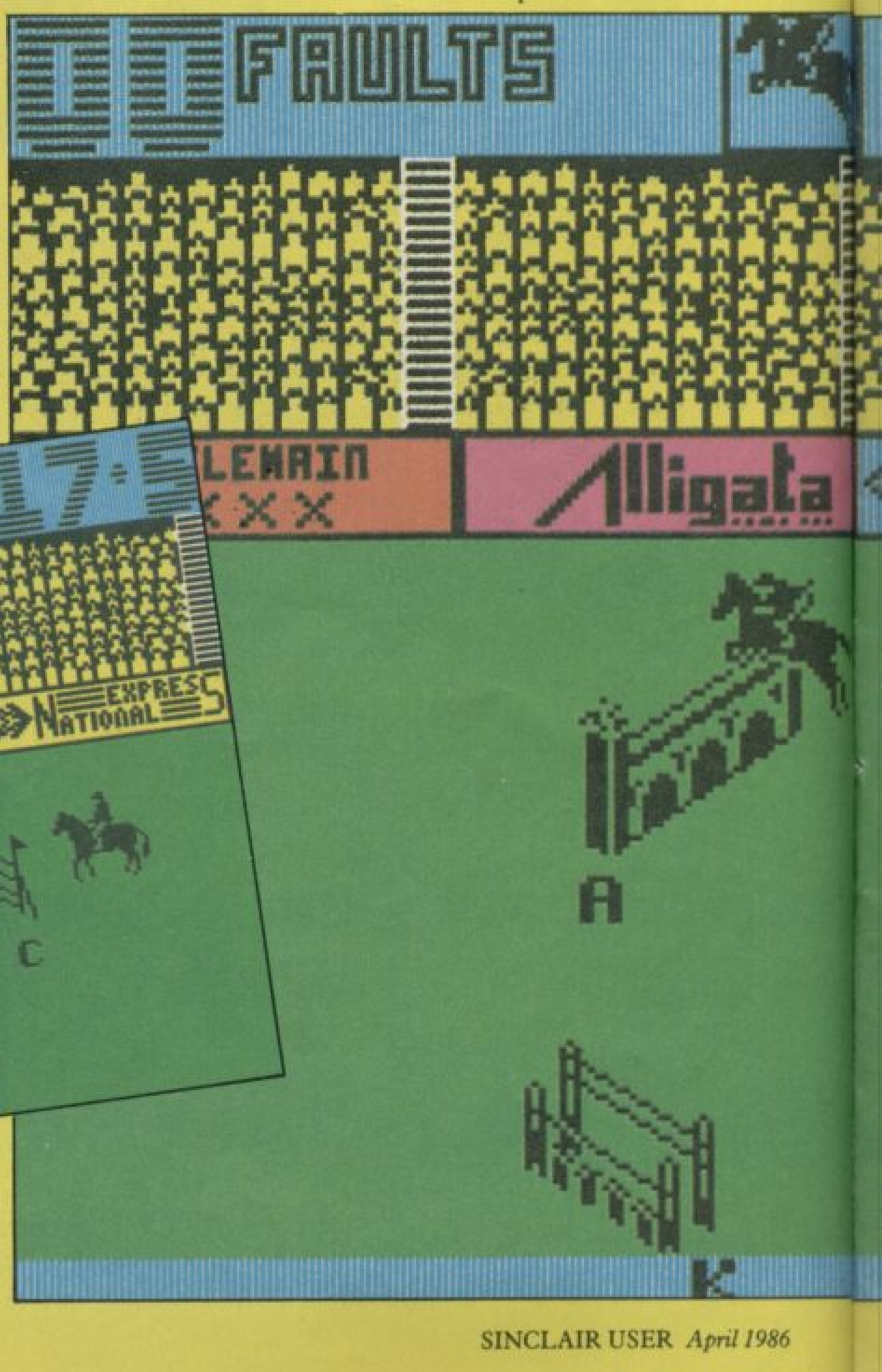
All the courses must be completed within 100 seconds, which is easy if things go right but hard when you have to start making detours to get back to the right place. If you don't go fast enough, or if you try to jump the wrong fence, your horse will refuse — it's an intelligent being and doesn't see why it should put up with stupid orders. Three refusals and you're disqualified, so it's better to go for broke and hope you don't knock too many fences down on the way.

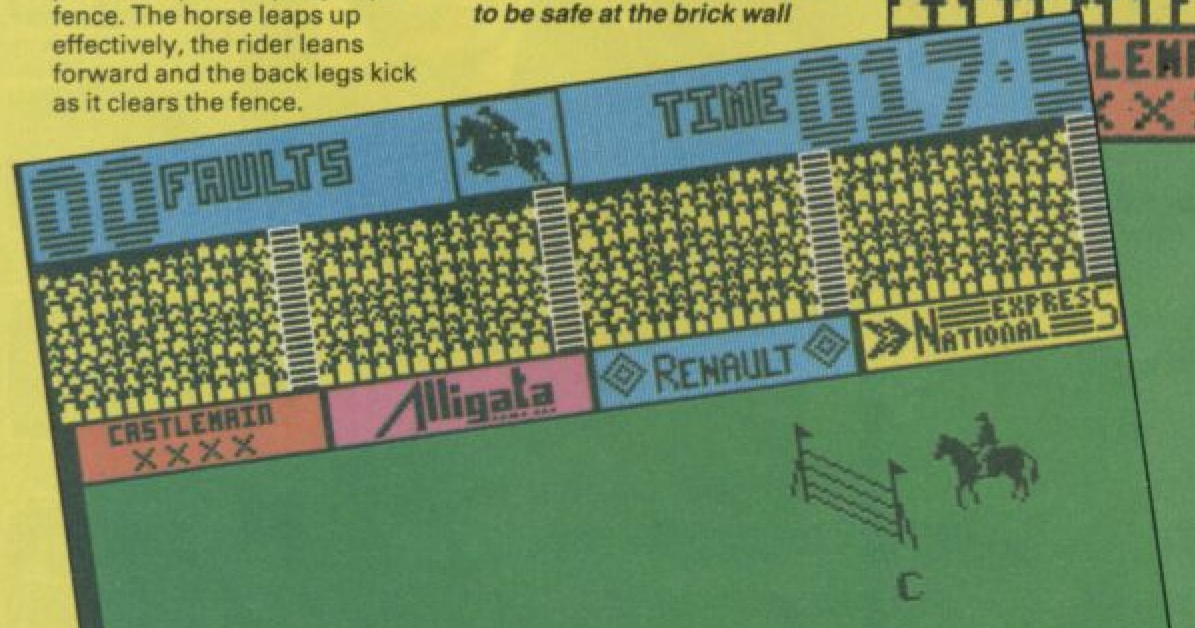
Each fence down costs four faults, and I was pleased to see that you can knock the bars with your front feet as well as hind legs. The one thing you don't seem to be able to do is fall off the horse. That's probably a blessing.

Show Jumping is immensely enjoyable, partly because it doesn't try to be too ambitious and just concentrates on the

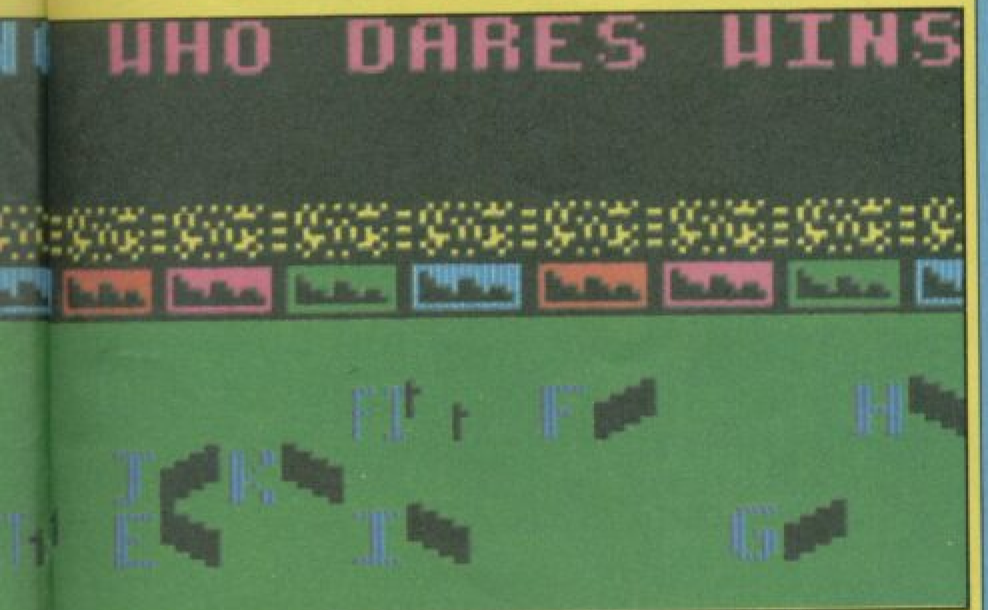


Eleven fences make this a tricky course, especially in the closing stages. The direction of jump is given by a flashing arrow later





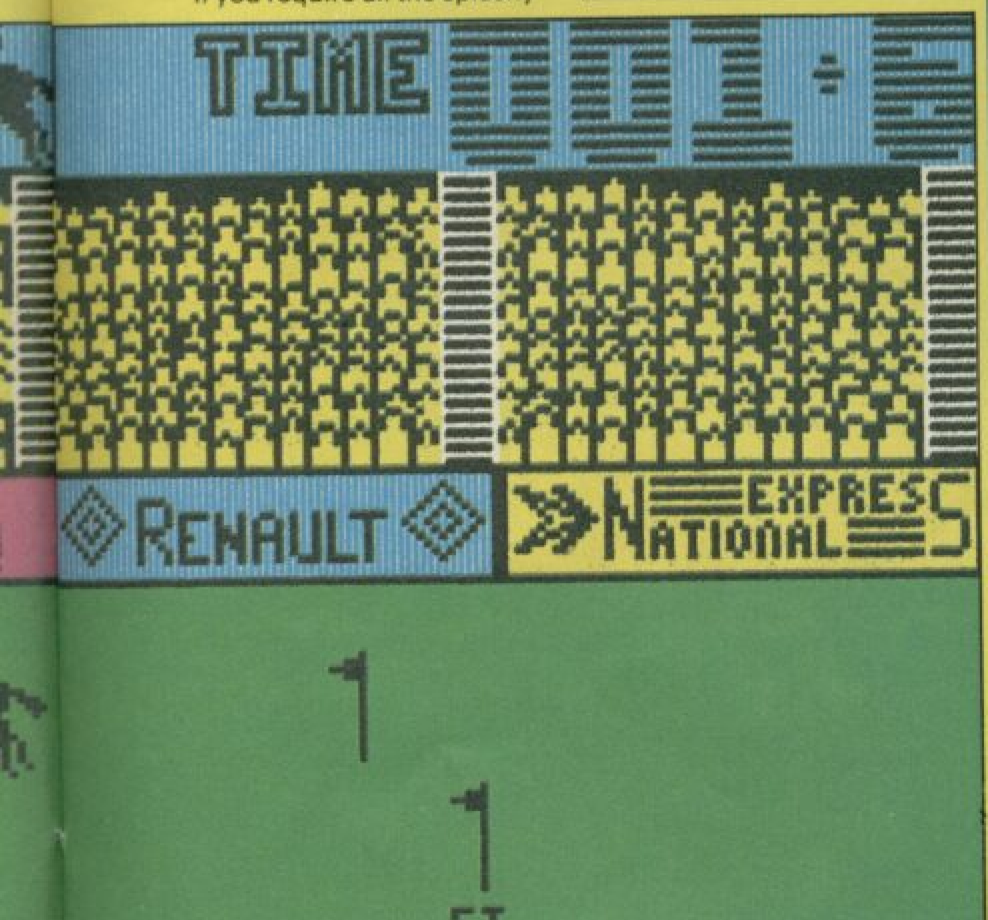
Right: The first fence is neatly lined up for you. Below: The rider must make a difficult turn to be safe at the brick wall



basic mechanics of the game and getting them right. Presentation is a bit sparse — notably, there isn't any sound during the game itself. We also found a minor bug, in that some courses stop the clock when you jump the final fence, instead of when you cross the finishing gates. That doesn't spoil the enjoyment, though, and Alligata has promised to look into the matter and fix it before the game is finally released.

If you require all the splashy background graphics and other frills, you may be a little contemptuous of **Show Jumping**, but fans of the sport and those who attach more importance to the game should certainly check it out — it's one of the more attractive simulations around. *Chris Bourne*

Publisher Alligata
Price £7.95 **Memory** 48K
Joystick Kempston, cursor
★★★★



Hypa Raid

AVOID THE Ruskies and steal the parts of their top secret MIG Starfighter from under their noses. The plot sounds a bit like *Firefox*, where Clint Eastwood has to steal the Russians' new MIG figher plane.

Hypa Raid doesn't bear much resemblance to the movie; it is basically a levels game without the ladders and with a few guards and puzzles to solve for good measure.

Scattered throughout the screens are a number of pieces of the Starfighter — little blobs, in fact. You have to collect those by dodging up and down the levels in each screen, avoiding traps in the floor and opening doors and partitions.

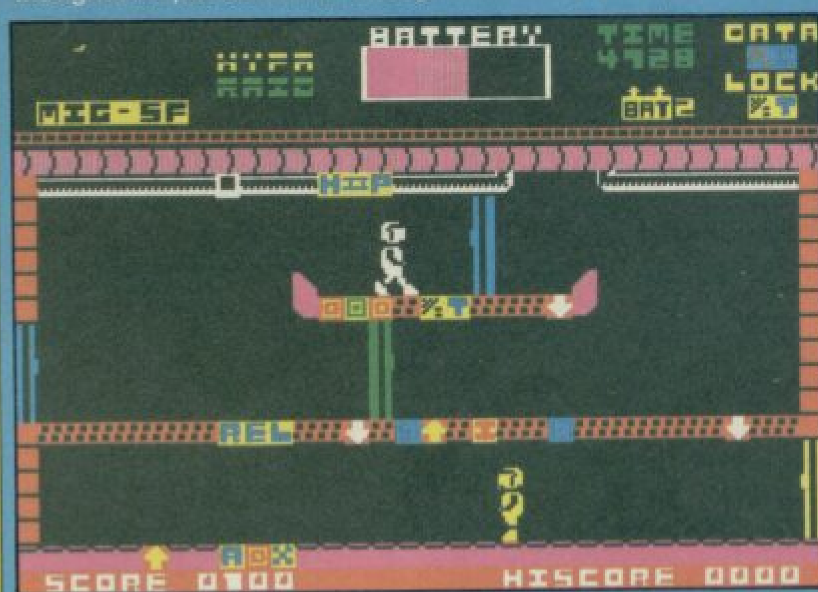
The game is by no means original, but the puzzles require split-second timing and a little thought before making each move. You have four batteries in your protective suit, and when each of those is drained you lose a life. Being caught by the patrolling Russians and stepping on a trap causes huge energy drains, so watch out.

SOFT 3 WARE

Buried in the floor of each level are lock cards, represented by a 'T', data cards, 'C', arrows pointing north and south which jump you from level to level and the dreaded traps. Those are coloured squares which alternate between blue and yellow. Step on a yellow one and you can say goodbye to your battery. They swap rapidly so be quick.

The access or lock cards are colour-coded and you will find that to get through a blue door to the next screen, you will first have to open a partition and one or two other colour-coded doors. As you can carry only one lock card at a time, you will have to retrace your steps two or three times. At least one level on each screen is divided by a wall which can be opened by a key, placed in the most inaccessible part of the screen. To get to the key, you may have to open several doors.

The first three screens are easy — they don't require much thought and you can whizz through them fairly quickly. After



that it's a different story. As you travel deeper into the game you'll notice that each screen progressively becomes more complex with more traps and doors.

Two of the most vital parts of the Starfighter are hidden in special secure chambers. You can't just open a door to get them. The data card is needed in these cases to open the door. And, as an added precaution, the floor is booby-trapped. The data cards are not easy to find and are hidden on other screens.

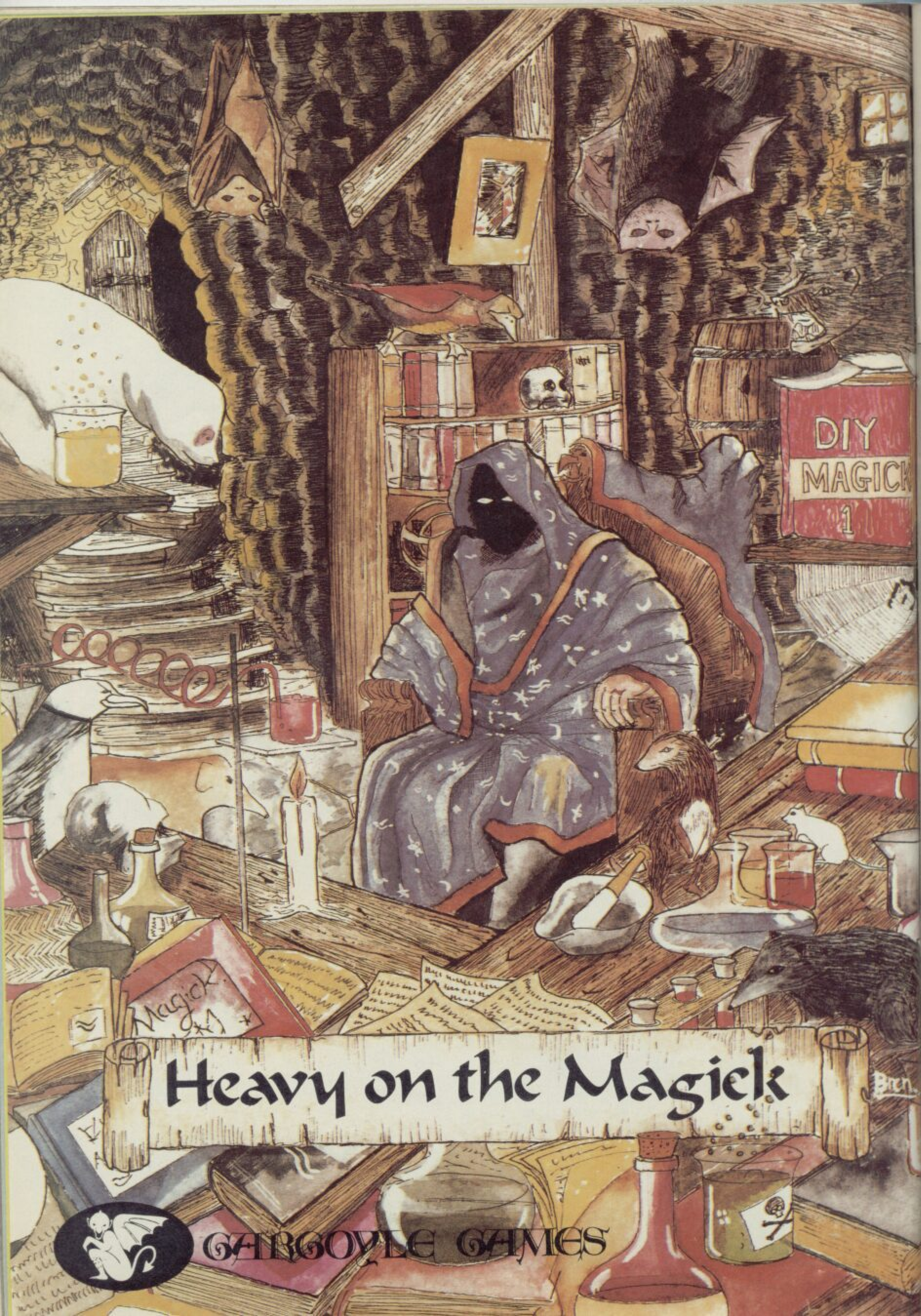
There are other signs embedded in the floor — one which offers you the chance of a breather, another is a hyperport, I'll leave you to work out the rest. One useful square is a transporter, which carries you into another screen, although to get to it you still have to open a door.

Once you have collected all four parts of the MIG, make your way back to the teleport room prior to escaping. This can be very tricky as it is well hidden and there is a time limit — if you hang around, you'll get the chop.

Hypa Raid is a simple game and yet very playable.

Clare Edgeley

Publisher Atlantis
Programmer Nigel Edwards
Price £1.99 **Memory** 48K
Joystick Kempston
★★★


DIY
MAGICK
1
Heavy on the Magick
GARGOYLE GAMES

Gerry the Germ

FIREBIRD has rushed straight from the toilet with its latest game in which Gerry the Germ tries to prove himself by giving some poor human victim a massive coronary. The company has been caught with its pants down as the game is unplayable.

Inside the cassette box you will find a poster illustrated with blue-tinted cartoons, rather like the ones you find on the walls of doctors' waiting rooms. The diagrams and cartoons are supposed to show you what to do on each screen. Instead the author has gone OTT in a guided tour of the human body's sewage system, with the help of bog rolls, deep water in the bladder and gas pockets. (Note to sensitive readers: STOP READING HERE).

Gerry has failed his Stinkploma at the Illistute of Infectology. Now he's fighting back and hopes to get that beauty prize of Virulent Virus of the Year. To do that he has to go through a healthy human's water works and give it the wobbles. If successful body temperature will increase and things begin to cook.

However, the only thing simmering was my blood, when I was faced with the task of getting off the first screen, 'humorously' entitled Lungeroo.

In the Lungeroo Gerry must collect a bottle of oxygen which is created when blood cells get together at the centre of the screen. Firebird gives some advice for conquering this bag of hot air but it's damn near impossible to carry out.

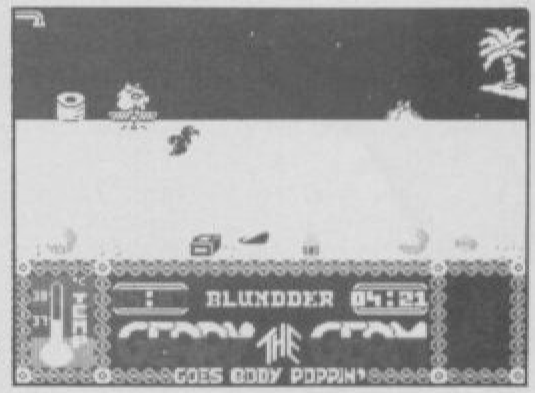
Gerry is supposed to go to the bottom of the screen and position himself in the middle. He should then wait until the blood cells split up and follow one as it does its acrobatics while helping to form a bottle.

According to Firebird you can then go in and collect the bottle. Nobody in the office could collect one of the bottles — let alone the six required to finish the screen. If you do succeed on this screen, then you pass into the kidneys, where a rather unpleasant incident in the loo gets Gerry into the bladder.

If Gerry gets hit by a blood cell in the lungs he's evacuated to the bladder. He must paddle his boat which rises and falls as water comes in through a tap and leaves in a flush of glory.

A toilet roll will block the flow if you don't keep it out of the way of the tap and under your boat, while avoiding a cock and bull (*what? Ed*) which will try to sink you. If that happens you're sunk for good and you immediately return to the lungs — it's so true to life it actually has you throwing up.

From the bladder you pass into the stomach — this sure is some sick person. To do this the water level must touch the bottom of a palm tree on an island. It's difficult because



when Gerry tries to defend himself the zapper repels the bog roll which flies across the water and flips up into the tap's mouth.

In the stomach Gerry has to avoid tapeworms, gas pockets and healthy foods such as apples. The stomach also contains aspirin which can be controlled with an acid bottle and junk food which gets in the way of Gerry's fun.

The pancreas is even more disheartening, with its white blood cells, medical supplies and body driver who controls the digestive systems. You get rid of the little man by burying him under an avalanche of coal.

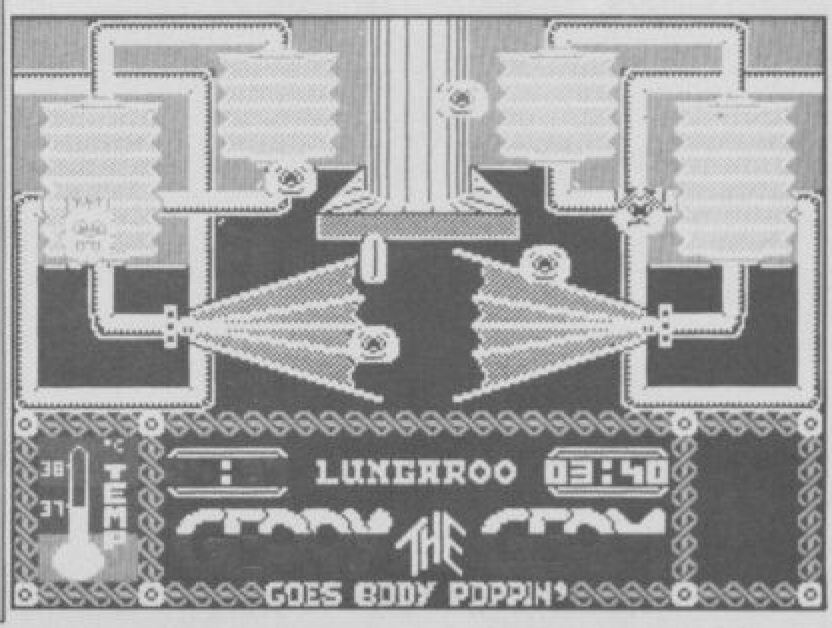
At last, the heart and the quest is almost over for the gallant germ. Gerry must get past heart boxers, arrows, axes, and a spring which will take you back into deep water where your troubles will start again.

The graphics are excellent, the characterisation well done and the plot is almost original. The only problem is that it's unplayable even with a joystick.

Gerry the Germ may be part of Firebird's top range but it's hardly hot — just a little flushed.

John Gilbert

Publisher Firebird
Price £7.95
Memory 48K
Joystick Kempston, programmable
★★★

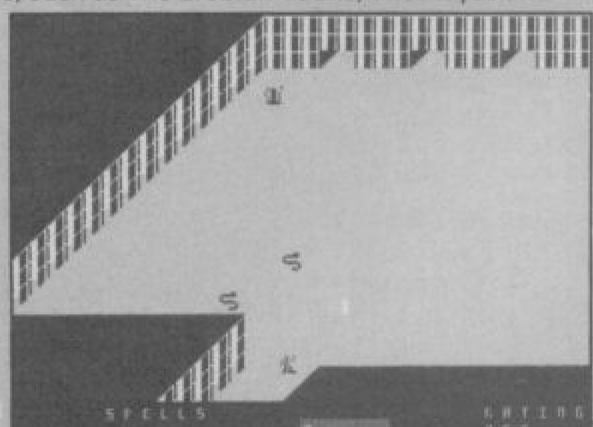


Realm of Impossibility

JUST BECAUSE a game has been a hit on the ol' Commode doesn't mean that the Spectrum version will be any good.

Ariolasoft's latest is a graphic example of how not to convert a best-seller — the graphics are awesome in their awfulness.

There is no plot to speak of, just a collection of mazes with grim sounding titles, such as The Erebian Vaults, The Abyss and



— finally — Realm of Impossibility. There are 13 mazes and each one gets more hazardous with ladders down to the lower levels.

Each dungeon contains a limited range of appallingly animated entities which include zombies, poisonous spiders, rolling balls à la *Raiders of the Lost Ark*, and snakes which look more like sickly worms. All of them are flickering matchsticks.

The monsters are, however, fast and fairly intelligent. Your character's only weapons are a bunch of crosses which he plants in the ground to keep the creepies at bay. He will find a variety of spells, such as 'freeze' and 'confuse', in the labyrinthine corridors of hell, but selection and execution of those is difficult when you also have to dodge the monsters.

Ariolasoft describes the game as an 'action/strategy program.' The only strategy involved is dropping crosses and getting to a key at the limit of each dungeon. Until you get the key you will not be allowed to retrace your steps and exit the maze.

The game can also be played by two players — if you're sure you want to show your friends the embarrassing mistake you bought — and you can both enter the dungeons at the same time. The idea is to help each other rather than compete.

That 'strategy' makes a fairly easy game — even on the final level of difficulty — into a simple game. I managed — admittedly on my own — to get through most of the dungeons, even some of those which were locked — what are keys for after all?

You will need a good hour to get tired of this boring and repetitive game — 50 minutes to get through most of the dungeons but, first of all, 10 minutes at the start rolling on the floor in uncontrollable laughter at the graphics. *John Gilbert*

Publisher Ariolasoft **Price** £7.95 **Memory** 48K
Joystick Kempston, Sinclair
★★

Giddy Game Show

BASED on the Yorkshire Television programme, Mirrorsoft's **Giddy Game Show** is designed to help parents teach very young children to recognise the letters of the alphabet.

The obvious question to be asked in such cases is whether the game does the job better than the traditional picture books on which we have all relied for so long. The answer here is that unless infants are absolutely crazy about the Yorkshire TV characters, the **Giddy Game Show** holds little to stimulate their interest, thus making it hardly worth the considerable trouble of loading the four separate games on the tape — not to mention the equally considerable expense.

Game 1 consists of reasonably jolly graphics showing the **Giddy Game Show** heroes Giddy, Gorilla and Gus the Professor, with a variety of objects such as an apple, a balloon or a xylophone, with the name of each underneath highlighting the a, the b or the z.

The objects appear in four groups — Aa-Gy, Hh-Mm, and so on — and each picture in the group is displayed for a second or two before an instruction appears telling the child and its parent to press the space bar to move on to the next picture. When the complete sequence has come to an end, but not before, the child can go back to the menu and choose a new group of letters.

There is no way to alter the sequence of each group of objects, or to speed up their painfully slow appearance and disappearance. Nevertheless, the child is assumed to have sat patiently through the entire sequence, without falling asleep or tipping Ribena onto the carpet, and to have learned the entire alphabet by the end, thus being equipped to play the other games on the tape.

Game 2 is a letter jigsaw, consisting of a grid with a letter — lower case — in the middle, with pieces of the letter scattered round the other squares of the grid. Pressing any key highlights each of the pieces in turn, and a section of the letter in the middle is also highlighted. When the two pieces are the same, the child presses the space bar, and hey presto, the missing portion of the letter is inked in.

Once again, the child cannot move round the grid at random, but has to plod round the pieces of the puzzle in strict rotation — a defect from which genuine wooden or cardboard jigsaws are free. Nor is there any way back to the menu until a complete sequence of letters has been filled in.

Game 3 features the Hungry Gorilla and a series of edible objects, displayed six at a time. The name of one of them, say banana, is spelled out at the bottom of the screen. Giddy, travels round the objects, once more in strict rotation, and when he perches above the one whose name is spelled out, the child presses the space bar causing the word to disappear — far too slowly once the initial novelty has worn off — into the gorilla's munching jaws.

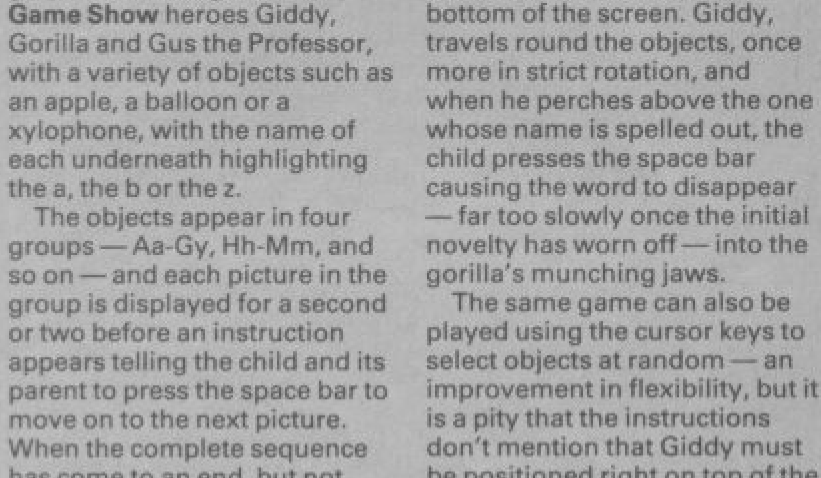
The same game can also be played using the cursor keys to select objects at random — an improvement in flexibility, but it is a pity that the instructions don't mention that Giddy must be positioned right on top of the object rather than above it before it can be selected.

Game 4, which refused to load on our review copy, again uses the cursor keys, this time to move Princess Galaxzena round a maze in a happy reversal whereby a damsel has to rescue a king in distress. The maze is littered with objects — most shown in earlier games — and the Princess must avoid landing on objects beginning with the forbidden letters displayed on the screen.

The game is accompanied by a cheerful little booklet, and there is enough colour and sound in it to amuse a child for a while. One fairly serious flaw is the fact that the space bar does not always respond as it should, but what really mars the game is that it treats the child as a passive spectator.

Perhaps computer games should only teach about computers, while teaching to read is best left to books. This game does nothing to prove the contrary. *Nicole Segre*

Publisher Mirrorsoft **Price** £9.95 **Memory** 48K
★★

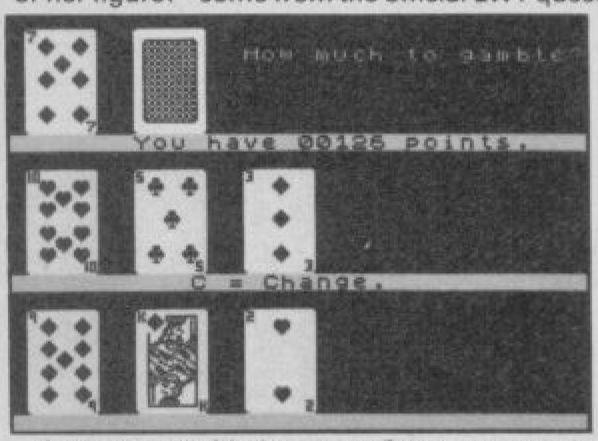


Play Your Cards Right

YOUR FIRST sight is of alleged entertainer Bruce Forsyth — host of the TV show — leering out of the screen. Pressing enter to get rid of him starts the game. Choose the number of players — one or two — and enter your names to bring up the first daft question. "100 men were asked: are you afraid of spiders?"

Hang on. Where are the instructions? Not everybody has watched this 'highly successful' TV program. And Britannia Software shouldn't presume otherwise, highly successful or not.

As some of you might know, **Play Your Cards Right** is a gambling game based on guesswork rather than skill. On TV it is played with couples and a great many of the questions are of the husband and wife variety. Revolting posers like "100 married men were asked: which do you usually notice first — a girl's face or her figure?" come from the official LWT question sheets.



Anyway, on with the game. On your turn you must decide how many men hate spiders, or how many women have dented their husband's car and lied about it, and enter a figure from one to 99. Your opponent then decides whether that figure should be higher or lower. If she is wrong, you begin gambling.

Five cards are laid face down and the first is then turned over. Yours is the brain-numbing decision as to whether the next card is higher or lower. If the card is a five you can change it, or you may freeze on any card and wait for the next go.

Freezing is the quickest way to win. If you freeze on the fourth card and get the fifth wrong, you won't have to start from the beginning again on your next turn.

The computer answers its questions before you've had time to read the first line, which means that when a question with an alternative crops up you're in the dark. For instance, "100 photographers were asked: would you prefer to work on *Vogue* or *Playgirl*?" You are asked to guess higher or lower with no clue as to which alternative the computer gambled on. Who wants to know anyway?

The game is run on a best-of-three basis. If you manage to gamble successfully on your five cards and reach the end of the line you win. If that happens twice you can go onto yet another tedious gambling game, but this time you bet with points.

There seems to be no end to the game. Higher or lower, higher or lower . . . To think that someone at LWT took the trouble to compile these incredibly stupid questions and find 100 people willing to answer them . . .

It's dreadful. *Clare Edgeley*

Publisher Britannia **Price** £7.95 **Memory** 48K
★

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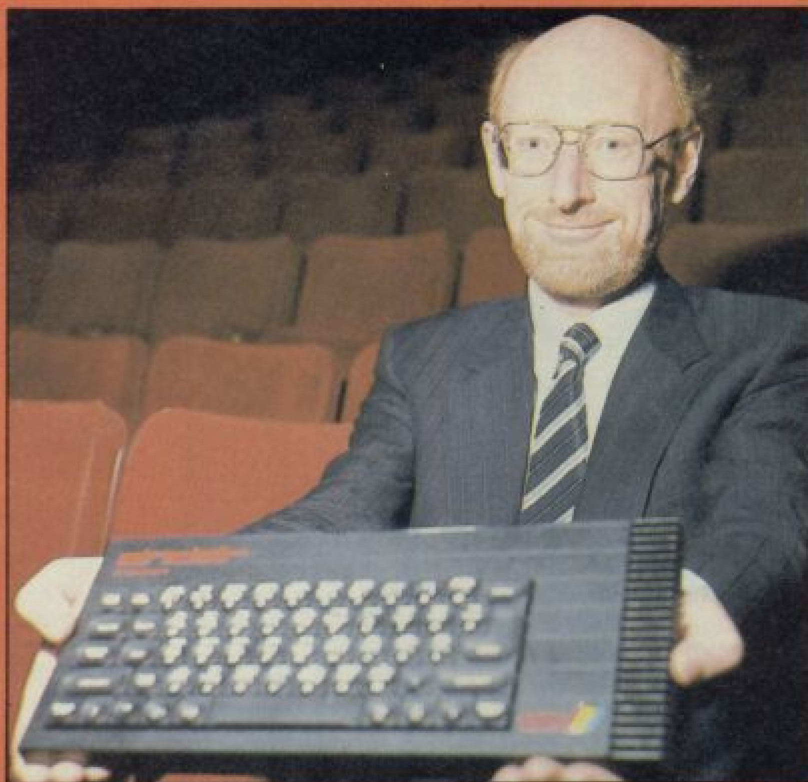
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Clive discovers games — at last



THE SPECTRUM 128 launch was made memorable by a much reformed Sinclair Research, determined to impress sceptical journalists and not so sceptical members of the trade.

The stage of the Mayfair Hotel's Crystal Rooms was bedecked in the black and red livery Sinclair has adopted for the packaging of its new machine. Was Sinclair expecting blood to be spilled?

Sir Clive's opening speech, and the press information distributed to the audience, emphasized the change in direction taken by the company, which has finally accepted the importance of the games industry. "We have focused the 128 on the entertainment sector," chief executive Bill Jeffrey is quoted as saying. "Recent market research has shown us that entertainment is easily the most common use of computers in the home." Congratulations, lads, welcome to the real world.

Initial response was "unprecedented", with £8 million worth of orders already received for the machine, which is priced surprisingly high at £179.95. That makes it only £20 less than the QL. Wouldn't that confuse buyers? "We see the QL as being in a different market," said Charles Cotton.

Criticisms, however, have been made about the launch price, fuelling speculation that the price of the Spectrum Plus might plummet — which Clive was quick to counter.

The QL was referred to again when Clive was asked whether he had changed his mind about the 68000 chip being the "architecture of the future and the technology on which all future Sinclair products would be based", a statement made at the QL launch in 1984. "Yes," admitted Clive, "I have."

Alison McGuire, marketing manager, with the aid of research done by AGB, showed that the games market is increasing while the education and business markets are on the decrease. She also said there had been an increase in the number of families who own more than one computer or who have upgraded. "The 128 is an upgrade machine as well as being a beginners' machine," she said.



There seemed to be some confusion over the software compatibility of the new machine. Clive stated that "it runs all old software" but later Jeremy Brown, product manager, qualified that by saying "all 48K software designed in accordance with our published guidelines". It has already been discovered that Firebird's **Elite** is incompatible, despite its inclusion in the 128 software catalogue.



Sir Clive: changing direction.

Clive again seemed out of touch when he stated that all software mentioned in that catalogue had been developed specially for the new machine. In fact only 33 of the 76 titles have been designed specificially and only nine of those have never been seen before in other guises.

As you will see from the reviews of the 128 games in the following pages, the products are by and large disappointing. A few have extra locations but most have only rewritten sound routines. Hardly software "quite unlike anything seen before" as Clive had put it, grandly, in his opening speech.

The commitment to the games market is not apparent in the design specification of the 128. It does not have joystick interfaces and there is no sprite capacity — although dot crawl has been eliminated.

> **"Recent market research has shown us that entertainment is easily the most common use of computers in the home"**
> *Bill Jeffrey*

The limp explanation for the absence of joystick ports came from Jeremy Brown: "There are lots of different joystick standards and we didn't want to come down on the side of one, say Kempston, while excluding the others. We did consider putting a programmable interface in the 128 but our research showed that it would be too expensive."

That is a strange attitude to adopt with a games machine. Kempston is an unofficial industry standard and nearly all games with a joystick menu include the Kempston option.

The success of the machine will be decided by the public. They will want to see new software which stretches the 128 to its limits. From what we've seen so far things can only get better.

Our Kempston Mouse is *THE BUSINESS*



We are proud to announce the launch of our Spectrum Mouse and Interface complete with the highly successful OCP Art Studio.



Mouse Interface

THE HARDWARE

The Mouse, which has two independent trigger buttons, uses an optical system to decode movements of an internal tracker ball. These movements are precisely monitored by the Interface, a simple port read revealing the exact X and Y coordinates at any instant.

THE SOFTWARE

RAINBIRD

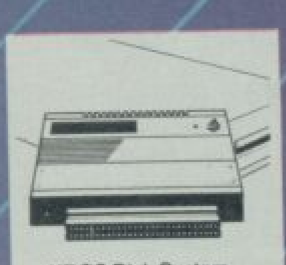
The OCP Art Studio is a Spectrum graphics package that is fun and easy to use.

It allows you to – create an image, shrink it, expand it, move it, rotate it, copy it, spray on a pattern or shade. Make elastic lines, triangles, rectangles, circles – stretch and manipulate, add text or characters, up, down, sideways – any size or proportion, zoom in to draw in fine detail, shrink the whole picture to add background.

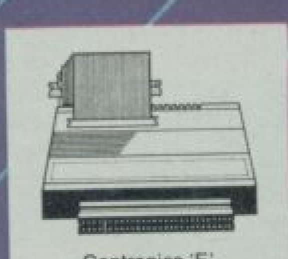
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The protocol utilised in the Kempston Mouse Interface is destined to come the industry standard to follow the success of Kempston Joysticks, Kempston Centronics 'E' and Kempston Disc Drive products.



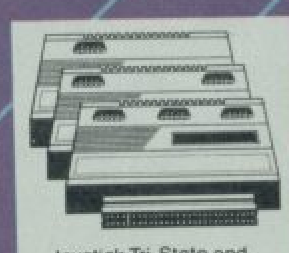
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Daley's Supertest

128 Software

THE WORLD-FAMOUS T-shirt enthusiast is back again in a repeat showing of some of his favourite events, in the 128 version of **Daley Thompson's Supertest**. Twelve separate events are included, four from Daley's Decathlon and all eight from the sequel, the 48K Supertest.

The full list of simulated sports is: rowing, penalties, ski-jump, tug of war, triple jump, 100m spring, javelin, 110 hurdles, pistol shoot, cycling, spring board diving, and giant slalom.

The game takes an enormous time to load, but all the events go in at once, so you don't have to mess about playing four or five at a time — though you still only get three lives for the whole lot. That makes things a good bit more difficult.

For those who are not yet aware of such novel concepts as joystick fatigue, there are two basic techniques involved in playing these games. Smashing the joystick left and right at high speed builds up power, speed, energy or whatever, and pushing the fire button at just the right moment for the correct length of time will allow you to hit targets, jump, throw things at the correct angle and so on.

The game opens with a dramatic rendition of the theme tune from *Chariots of Fire* to put you in the mood. Short bursts of alleged music link the various sports and new sounds have been put into some of the events for firing pistols.

The eight Supertest events look very much the same as the original events, but the four from Daley's Decathlon have been juiced up to a similar standard of graphics. The old flickery Daley is now much more solid and the backgrounds are more pleasantly coloured.

This sort of compilation program, while it offers nothing of any great novelty, makes sense on the 128. It is a distinct advantage to be able to play all the events on a single load.

Our rating is not, of course, based on value for money as Supertest is free with the Spectrum 128, at least for the time being.

In the meantime, it's a good addictive game for new users to get into quickly and will obviously have a wide appeal.

Chris Bourne

Publisher Ocean
Price Free with 128K Spectrum
Memory 128K
Joystick Kempston, cursor, Sinclair
★★★★

***THE FOLLOWING** pages show a selection of games for the Spectrum 128 and include* **Daley Thompson's Supertest** *and* **NeverEnding Story** *which come free with the machine.*



NeverEnding Story

SOME OF THE BEST music I've ever heard on the 128 characterises Ocean's remake of **The NeverEnding Story**, which was originally launched just before Christmas as a three-part adventure game.

The storyline follows that of the film, rather than Michael Ende's original tale. You play Atreyu, a young boy who must find the saviour of his land, Fantasia, threatened by the Nothing which consumes it. Various quaintly-named characters are there to help or hinder-Falkor the luckdragon, Morla the ancient tortoise, or the gnomes Engywook and Urgll. Gmork, the evil werewolf, will be hot on your tracks the whole time, so you have to move quickly.



There's not really much I can say about **NeverEnding Story** as far as the game goes which hasn't already been said by our own Richard Price, who reviewed the original Spectrum version in the January issue. The 128 version is simply the three parts of that strung together in one almighty saga which, if you don't mind the fairy-tale elements, is thoroughly enjoyable and quite demanding.

The main addition is the music, and that consists of an excellent and lengthy version of the theme tune from the film. Ocean has executed it well, using a fade-out at the end, and you can have it running continuously as you play if you like, and just turn down the volume on the TV if it gets too irritating.

The graphics are just the same, and very good too. A split screen format has attractive pictures at the top, with pictures of the objects you are carrying or people with you superimposed. I was a little irritated by the way the program treats people and animals as objects to be 'got', but it does make the vocabulary simpler when you get the hang of it.

The 128 is an ideal machine for really big adventures with lots of illustrations, and it shouldn't take those software houses with good adventure writing systems — one thinks of Level 9 — long to adapt to the new machine, with good original quests that take up all the available space.

NeverEnding Story must come close to filling up the memory, and is a good choice for inclusion as one of the games given away with the machine.

Chris Bourne

Publisher Ocean
Price Free with 128K Spectrum
Memory 128K
★★★★

Lode Runner

OK, SO Software Projects only had a few months to come up with a 128 title but why pick **Lode Runner**? And why make so few alterations?

When I'd loaded the game I expected a melodious tune to waft from the television speaker and hundreds of very different rooms in this levels and ladders game. Instead the only sounds are bleeps and squeaks — admittedly using the 128's three-voice capability — and 150 rooms full of red brick, yellow ladders and gold blocks.

For those of you who don't know how to play — the plot is four-years old — here's the story. You are a highly trained Galactic commando who has ventured into enemy territory. You are after the gold which the power-hungry leaders of a repressive Empire have stolen.

The only way you can stop the magenta monsters is by drilling a hole in the ground. Then you can stamp on their heads using them as bridges over those holes.

Once you've cleared the gold bricks from one level a ladder extends off the screen and you can escape to the next. The final screen is the most artistic, though it is the easiest to complete. You'll probably never get there, however, unless you use the screen editing facilities.

The screen editor allows you to change and produce user-defined screens and save them to tape. The game can be made easier or more difficult, depending on the ladder and level system you set up.

It is also possible to try the new set ups you have made by going into the editor menu and typing in the number of the screen you want.

The only reason for bringing out this 128 game is to be included in the list of companies with products available for the machine. There is no music in the game and only minimal sound effects — which occur if you are killed by an alien or if you pick up a gold brick.

If you forget about the abysmal plot, substandard graphics, lack of music and predictability of each screen you could say that the game is addictive. Yes, you could, but I'm not.

John Gilbert

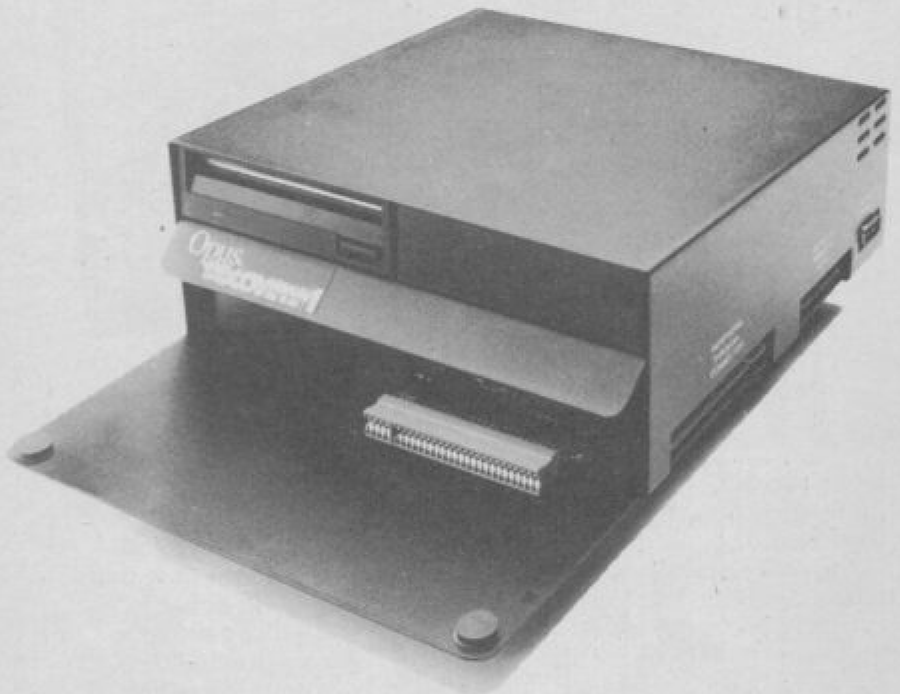
Publisher Software Projects
Price £9.95
Memory 128K
Joystick Kempston
★★★

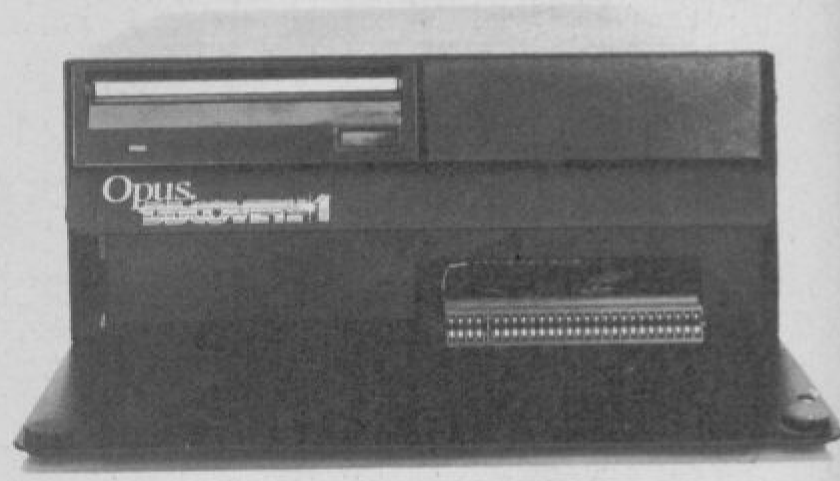
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Gladiator

BREAD AND CIRCUSES. We who are about to die salute you. Domark's recreation of the bloody duels in the arena of Rome has been completely reworked for the 128K Spectrum. It's one of the few games which has not only been improved by the addition of extra material but has also sought to remedy faults in the original program. That is very much to Domark's credit, and an intelligent way to make use of the opportunities the Spectrum 128 offers for upgraded software.

SOFT 5 WARE

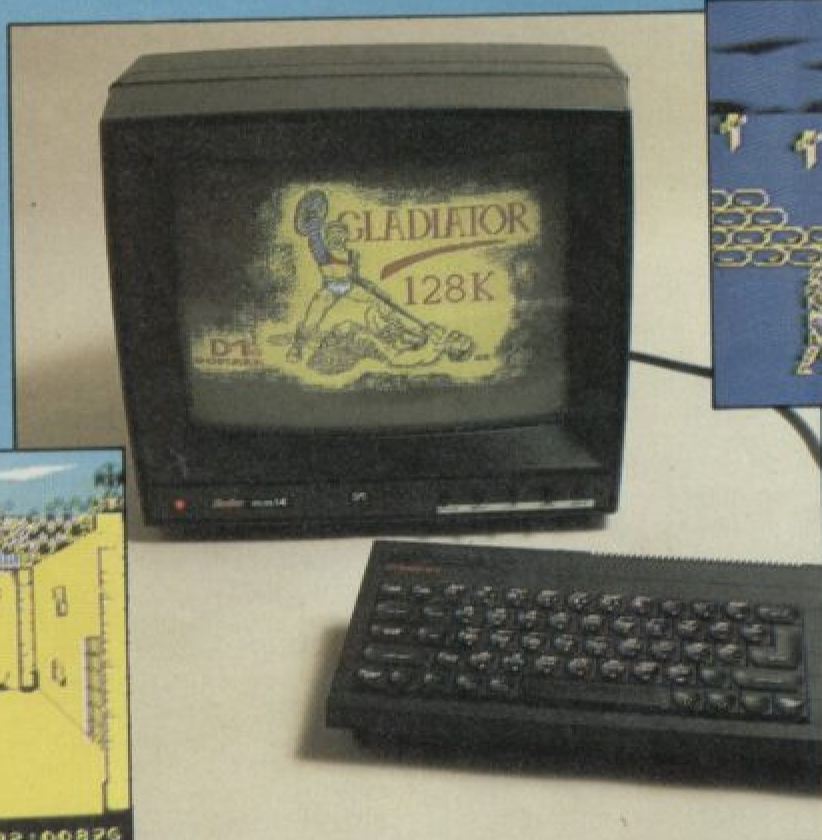
The original game was a very complex fighting program on the lines of **International Karate** or **Fighting Warrior** — we reviewed it in the January issue. One problem then was far too many moves on the joystick, some of which required pressing the fire button twice accompanied by the appropriate joystick position — that often led to throwing a weapon when instead you wanted to perform some devastating attack.

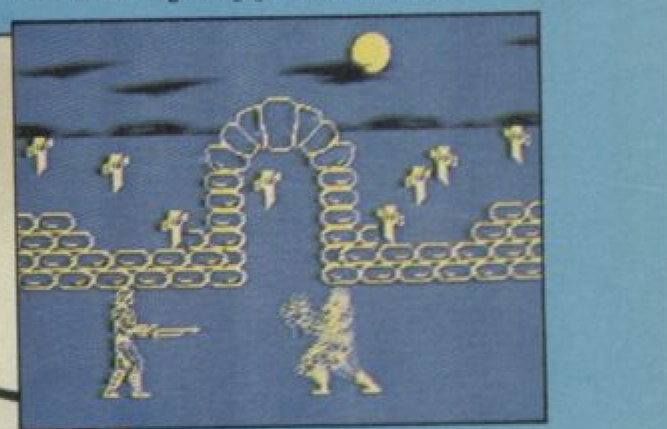
The new version actually scales down the movement options to a straight 16, one set with the fire button held down and one set without. It's now a much easier and faster game to play, without sacrificing any of the variety of skill involved.

Other additions include a rather out-of-place, but well-executed, circus theme at the beginning and fanfares when the gladiators march out from their caged enclosures at the beginning of each bout, as well as a whole set of extra screens for different bouts. The initial arena screen is the same, but after that there comes a moonlit duel by a Roman graveyard and a new arena with stands of what seem to be wineskins by the side.

The gladiators, superbly animated, now look different. You are the one with the fair hair and the clean-cut look. Your opponent has dark hair and probably hasn't washed since 54BC.

With 45 weapons to choose from, each with different attack and defence capabilities, **Gladiator** is probably the most monstrously bloodthirsty fighting game of them all.







Prepare yourselves for the contest of all time then — grind those blades and mend the weighted nets.

Morituri te salutamus.
Panem et circenses.

Chris Bourne

Publisher Domark
Price £9.95
Memory 128K
Joystick Sinclair, Kempston
★★★★★

Technician Ted

TED HAS BEEN given a much easier job than the one in the 48K version of this game, but there's much more work to be done.

The game is twice the size of the original, with 100 rooms in the factory and 30 tasks to perform. Unlike the original game, in which you had to guess which tasks to perform, each of the jobs is numbered.

That does not make their performance any easier, though. Some, like the one waiting in Ted's Den, are split into two and you have to find out which part should be performed first. Others are hidden behind objects, such as rampant C5s over which you must jump at the right time.

Some of the new screens have been created with current affairs — well almost — taken into account. There's the C5 production line which never breaks down but constantly runs over its hapless work force, and the Sinclair Research factory.

The cloth-capped hero also has to put up with the brothers on the picket line who have the help of an Arthur Scargill lookalike. Scargill's face pops up in nearly every screen blocking the way for Ted. He will have to jump over him and sometimes sneak under him.

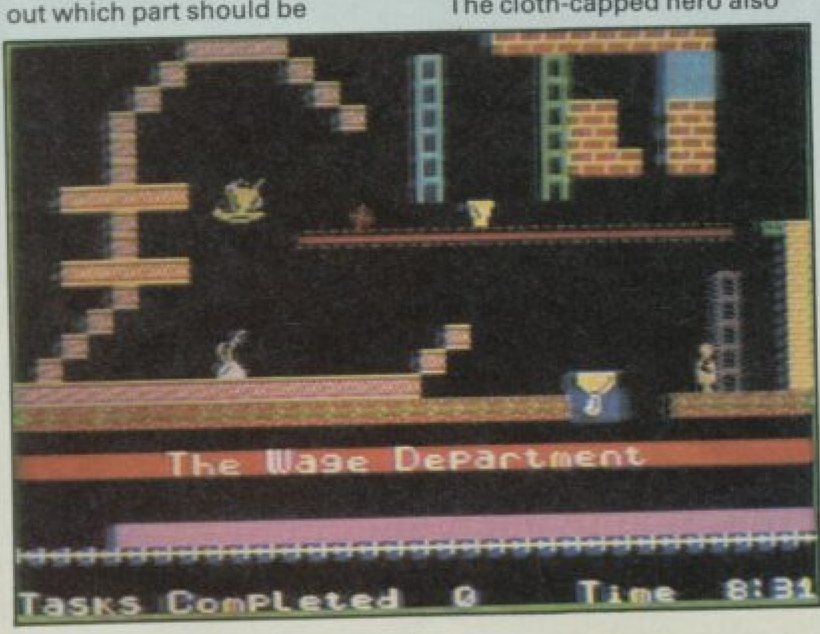
The interactive graphics are slightly better than those in the original game. You do not lose a life unless you score a direct hit on an obstacle.

Hewson has put the cutest sound track and effects in the package and those can be played throughout the game. Effects and music are controlled separately on the main menu before the game begins and you can have one set on without the other.

The music at the beginning of the game, Tchaikovsky at his raunchiest, uses only two of the three 128 voices but, nonetheless, adds a carnival atmosphere to the game. The tunes may be slightly off key but I have a feeling that the notes were made to droop to make the game more amusing.

SOFT 5 WARE

The Mega-Mix is not just another 128 revamped con job. The authors, Steve Marsden and David Cooke, have made the game more playable for beginners and a viable buy for those people who have the 48K version. It's not a total re-write but gameplay is different and the new locations make you forget that you are playing a game which has been around for over a year. *John Gilbert*



Publisher Hewson
Price £7.95 **Memory** 128K
Joystick Kempston
★★★★★

Knight Tyme

MASSIVE MAPS . . . over-populated galaxies . . . high-resolution full-screen graphics . . . wit, humour, room to laugh . . . that's the sort of thing I was expecting software houses to produce for the 128.

But so far there's only one company that's written a game specifically for the new machine, and it will probably amaze you to learn it's that much-maligned home of the budget quickie, Mastertronic.

While everybody else has been busy upgrading old games by bunging in a few more rooms and a couple of snatches of tasty music, Mastertronic has quietly been working on a genuine 128 game at the astounding price of £2.99 — not a penny more than anything else in its MAD range but considerably bigger and much more spectacular.

Knight Tyme is the sequel to **Spellbound** and **Finders Keepers**, both by top Mastertronic programmer David Jones. His new, equally eccentric game is a vast odyssey through space in the company of 16 other characters to find the guardians of time and persuade them to let you through the black hole which takes you back through the centuries. Why do you want to do this? Because it's there . . .

Knight Tyme hasn't been finished yet, but I travelled into the wilds of Tronic land — two stops on the tube from *El Pueblo Sinclair User* — to graciously allow David and his well-heeled bosses to demonstrate the game. After the usual exchange of pleasantries concerning **Action Biker** the well-bossed heels disappeared and David got on with it.

Knight Tyme is an animated adventure, to coin an obvious phrase. It's not really an arcade adventure, in that you need only use the joystick to position yourself next to the right character or over the right object. On the other hand, the mental agility required to interpret the various problems is considerable.

There are a number of menus which can be accessed when you're not moving around the ship, which allow you to pick up, drop, wear, take off, read, examine and generally muck about with objects, characters and your environment. Those menus will also offer more specific options at appropriate times, such as moving the starship or using transporters to travel to the planet's surface.

What starship? Right. You start the game on the *USS Pisces*, floating somewhere around the 25th Century on an ostensibly peaceful trading mission. You're trying to return to your own time, but the first thing to do is to get equipped. There are two types of characters involved — droids and real people. Droids will always obey you to the best of their ability, but people may ignore you if you are not sufficiently attractive to them.

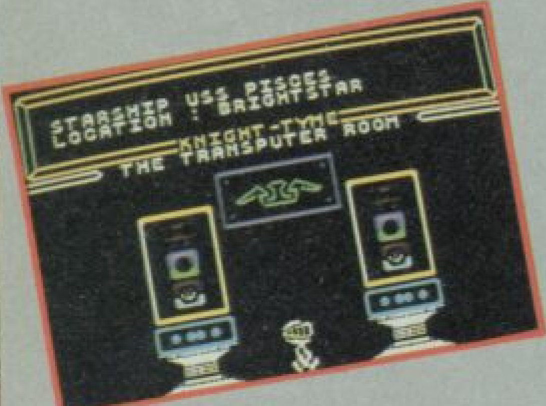
Let's follow the Magic Knight — you — through the first few stages of the game. He starts off in the Transputer room with a selection of peculiar objects. The white gold ring is a magic item, courtesy of Stephen Donalson's Covenant Trilogy — David's not afeared of mixing magic and science fiction if he wants. "When you meet the Time Guardians you'll have to prove your skill at magic anyway," he says.

Other objects include an invisibility cloak which can get you past some problems but will make it difficult for characters to understand you, since they can't see you, and an McTablet of concentrated food. There's also an advert which is otherwise useless but if read produces the first of the flipscreens programmed into the game, a panel of Mastertronic self-admiration. These screens are stored in the voluminous 128K memory like standard SCREEN$ and then flipped into the display file whenever you like. In fact, there are particular memory banks within the 128 which can be directly swapped with the screen display in order to instantly reproduce pictures, but David says he didn't use that method for his screens.

Although the advert is a bit of a show-off, there are other pictures hidden away in the program which will be of more immediate relevance. Given the size of the memory, it's quite feasible to fill up spare space with lots of such pictures without damaging the quality of the game — luxury to programmers who in the past have always had to choose between good games or good graphics.

We wander around the spaceship for a bit. There's an armoury, a control room, various holds and several droids sitting around waiting to be told to do something. Not much going on here, David.

David points out that in order to do anything interesting I'm going to need an ID card, and says Derby IV can help. Derby IV turns out to be a computer, who, when asked for help, produces a blank ID. In another room I find a camera and a roll of film — obviously something to do with putting my photo on



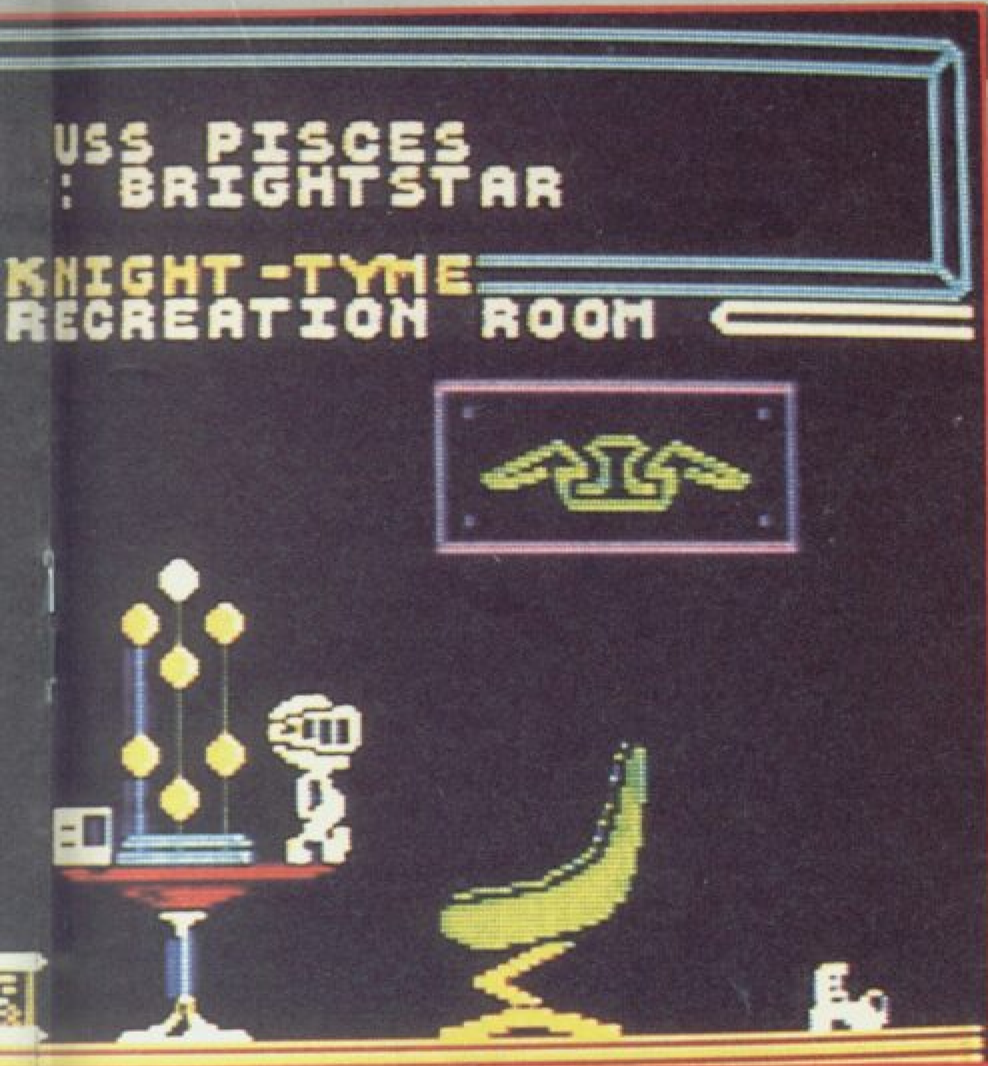


Magic Knight

Window menus allow the knight to pick up camera, film and glue







ight takes a well-earned rest in the recreation room

SOFT PREVIEW 128K

the card.

Forbin the droid can help here. Droids are semi-biological beings, according to David, which sounds like a hint to give it some food. I proffer the MacTablet.

"Klink says 'Yummy, you can almost taste the side salad in this T-Bone steak tablet'." David explains that there are eight different flavours for the tablets. That's more variety than you get from MacDonalds, anyway.

Klink is then given the camera and the film and told to take a photograph. There's a blinding flash, but it appears the photo hasn't come out. "You're still wearing the cloak of invisibility," explains David, wearily but helpfully.

The graphics for all this are simple but effective. There's no 3D effect but the speed of movement is fast in compensation. Virtually anything that can reasonably be examined or read produces messages on the screen, often quite verbose and very funny. When I finally manage to use the pot of glue to stick the photo — a new, successful one — to the card it turns out to be a special pass signed by King Jones himself. David's nothing if not modest.

Mastering the ship's facilities is only the beginning of the game. You must travel among a wide range of planets in order to discover the location of the black hole. At some of these planets there will be other characters — hostile or helpful, and usually requiring some sort of fee for their services. The ship and its shuttle comprise about 15 rooms, and more than 50 are spread around the various planets.

Messages concerning the other characters may reach you — Murphy, for example doesn't like me, but has a craving for potatoes. Either I'm going to have to find some spuds for him or use my various defences — gas, invisibility cloak, magic perhaps, to get past him. There are three basic defences, and all have a corresponding attack form. Cameras are dealt with by the aforementioned cloak, gas by a gasmask, and microphones by the use of special boots.

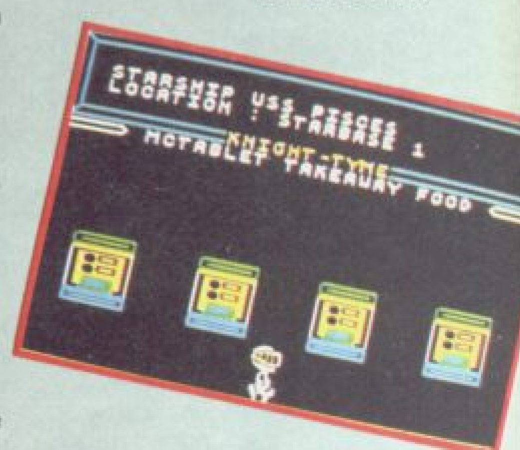
To say much more about the game would be premature at this stage, but we'll carry a full review as soon as we can. In the meantime Mastertronic do plan to bring out a scaled-down 48K version of the game with less graphics and fewer rooms — "or more likely fewer stars" says David. He says it's his intention to use up every byte of the 128K in the final version, and that will make it more than twice as big as anything on 48K.

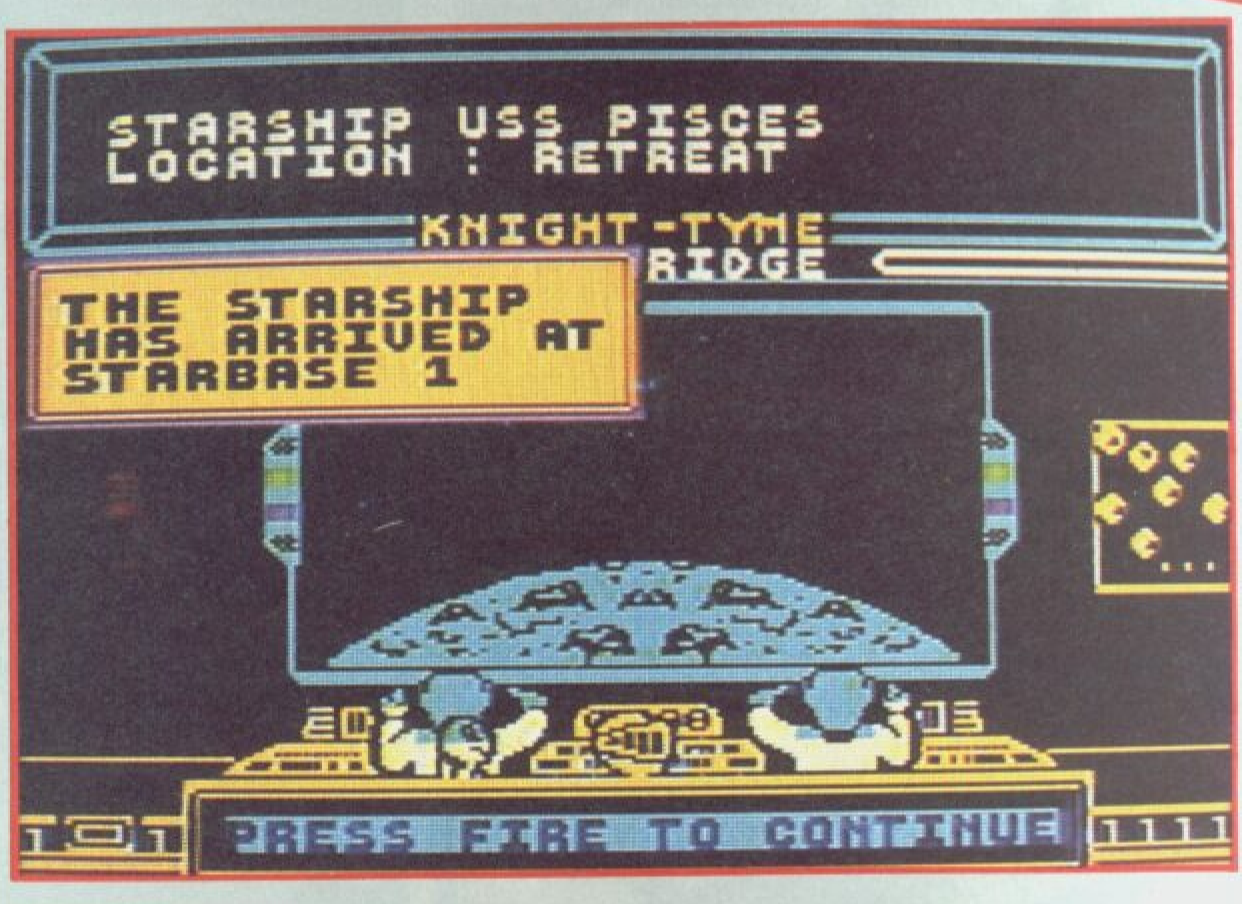
"If we're going to do anything on the 128K," says Mastertronic's Colin Johnson, "we may as well go all out for it." The difference between that attitude and those of software houses who are only interested in testing the water with a souped-up rewrite is already apparent in what I've seen of **Knight Tyme** so far.

Perhaps other companies may learn a lesson from Mastertronic and follow suit — because if the new machine succeeds as it deserves to, it's going to need a lot more than **Spinoff Raiders Pt IV** (128 version) stamped on the cassette inserts to convince people.

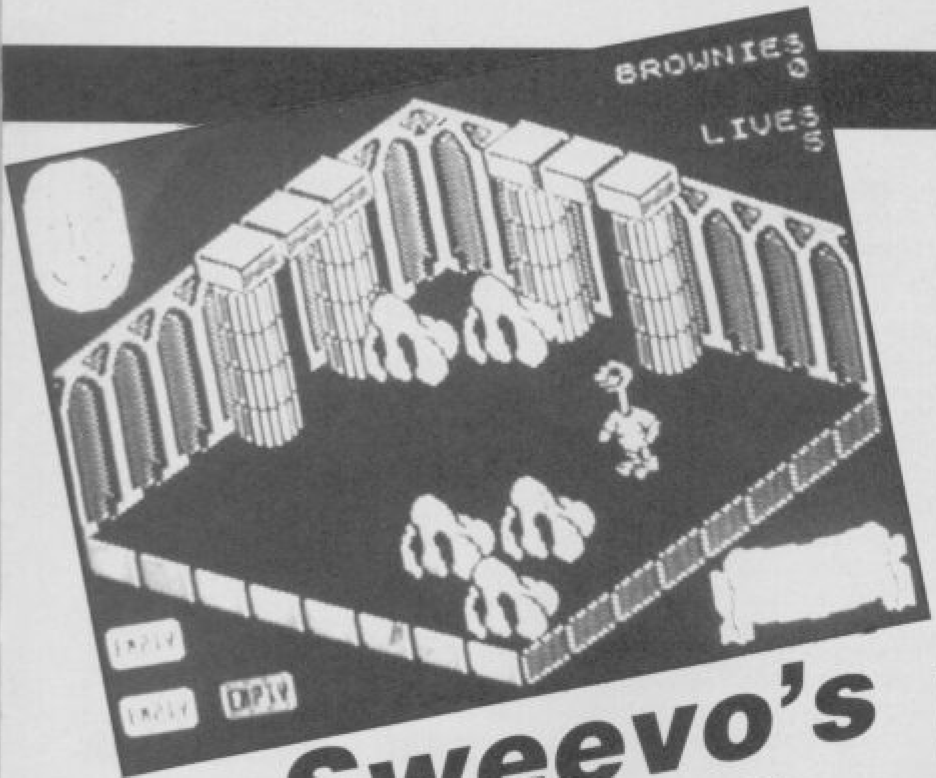
Well done Mastertronic. Who's next?

Chris Bourne









Sweevo's Whirled

GARGOYLE's contribution to the great 128 bandwagon/ beanfeast is a new version of **Sweevo's World**, reviewed in the February issue.

Retitled **Sweevo's Whirled**, which just about sums up programmers Greg Follis and Royston Carter's idea of verbal humour, the game now contains 250 different rooms in a **Knight Lore** lookalike of great wit and style.

SOFT 4 WARE

All the energy has gone into creating new rooms and the differences which that makes to the gameplay. There's no added music, alas, just the same old beeps, now amplified through the TV speaker. Whether you reckon that makes it sound twice as good or twice as bad is a matter of personal opinion.

For those who don't know the original, you must travel around the interconnected levels of Knutz Folly, an artificial planetoid full of rubbish and weird genetic experiments. These must be cleared up in order to win.

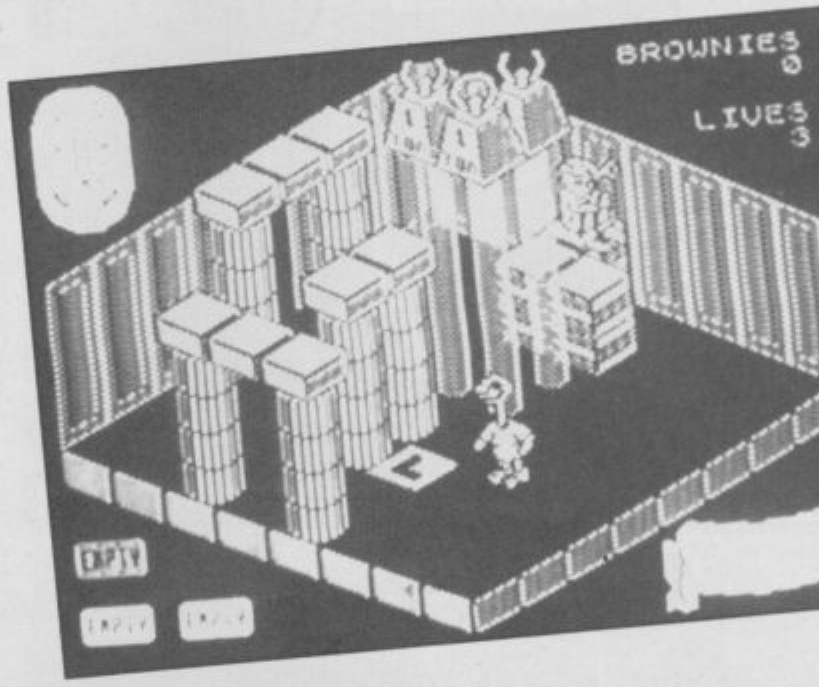
Sweevo himself is a delightfully animated creature of extraordinary clumsiness. He parachutes into rooms, curls up in a ball when rocketed up lift shafts, and see stars when he hits objects. Recurrent themes include deadly fruit, horrible fingers which stick up through the floor at a moment's notice, little Hitlers, nasty girls, the Goose which lays the golden erg and other strange creatures and traps.

Additions to the 128 game include sets of upturned nostrils, which seem to be just waiting to suck you in to snotty oblivion, and strange Victorian style streetlamps.

Although you can't push objects around as in the 3D Ultimate games, **Sweevo's Whirled** contains much more intricate routing problems as there may well be hidden exits and entrances to rooms via unseen transporters. Greg and Roy have a nasty habit of leaving important objects or places hidden behind towers of blocks so you only find them when you're on top of them.

The other side of the game is its insistent mockery of the rather serious Ultimate classics, **Knight Lore** and **Alien 8**. This lifts the game from lookalike status to a class of its own, as its quite clear what Gargoyle are up to from the start. The old boot from **Knight Lore** lurks around, and the continual picking up of tins upon which to stand to reach other objects is a sort of high energy version of all that ferrying around of objects in the Ultimate games. Full marks for fun on that score.

Other additions to the game include an extra two start positions which you can choose in addition to the original four. Many of the new rooms have been distributed around the maze fairly evenly, so that players of the original will find it's not just a question of solving the old game and then moving to a new section.





The Rocky Horror Show

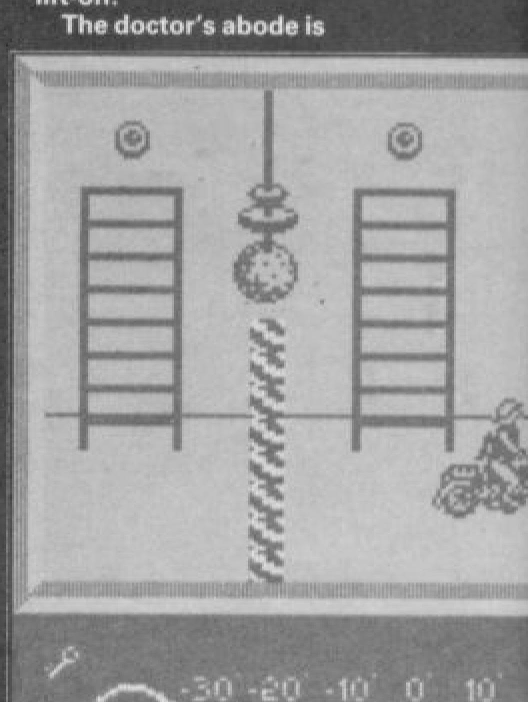
THE TIME WARP sounds rather out-dated now, and the game doesn't look so hot either.

Probably the only reason why CRL has bothered relaunching this 128 edition is so that it can add the sound from the Commodore 64 version. In practically all other respects nothing has changed.

The film, of course, was something of a cult hit, with cinema audiences going ape — speaking the lines in unison, and throwing toast and confetti at the screen. Reduced to the confines of a Spectrum, even with 128K, what you get is a bunch of bizarre characters mouthing mumbo-jumbo — "That's not the candlestick you're holding" — which has minimal significance even if you've seen the movie.

The game is actually very simple. You are Brad — or Janet — and you must find the 15 pieces of the dismantled De-Medusa machine which are scattered around evil Dr Frank 'n' Furter's castle. The De-Medusa must be remantled if you are to save your beloved Janet — or Brad — from being turned into stone. Time ticks away as the castle, a disguised spaceship, counts down to lift-off.

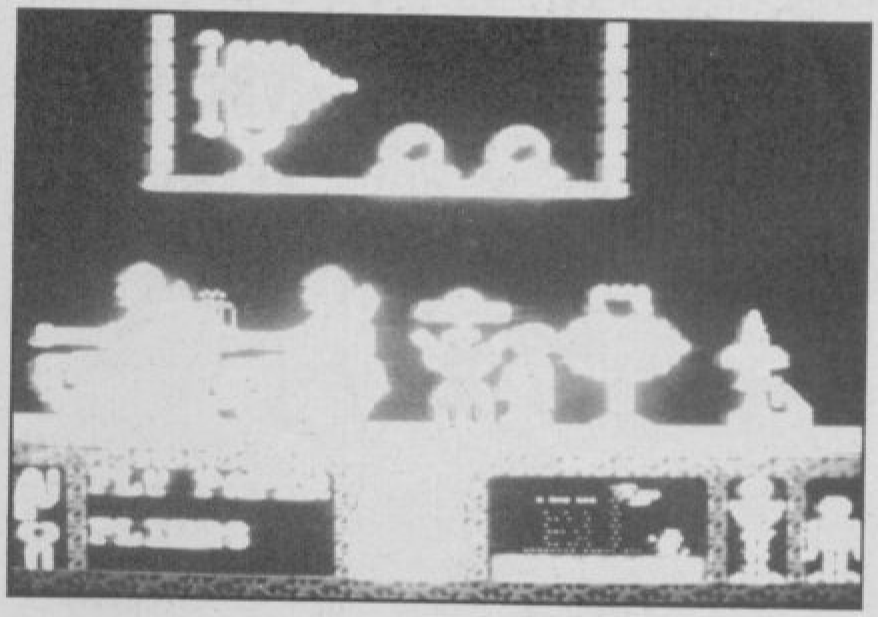
The doctor's abode is



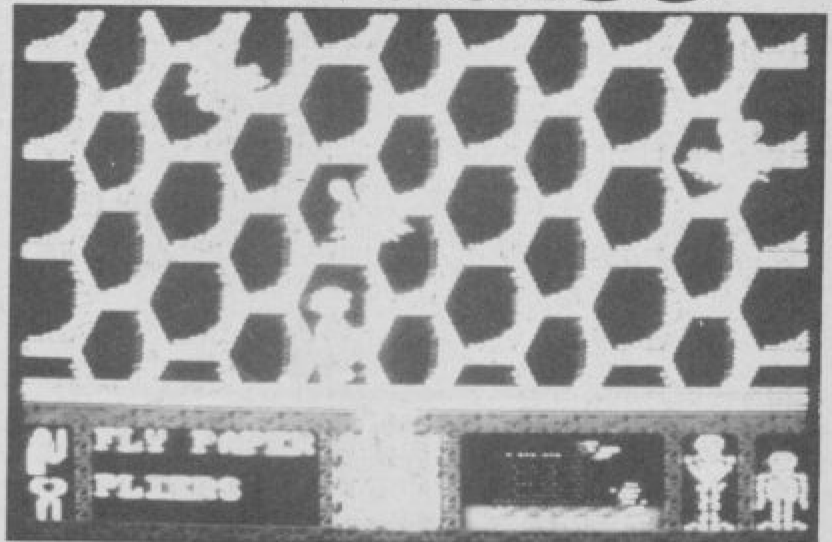
The original version won five stars for its original humour and sheer scale and chutzpah. While **Sweevo's Whirled** is clearly better, by virtue of being much more complex and vastly larger in size, the lack of good sound and anything really new and noteworthy leads up to knock a point off for not trying as hard as possible. It's also £2.00 more.

I'm sure Gargoyle's programmers — possibly the best in the business — can do better with their next 128 release. *Chris Bourne*

Publisher Gargoyle
Price £9.95
Memory 128K
Joystick Kempston, cursor, Sinclair
★★★★



Three Weeks in Paradise



THE RUSH to bring out 128 software to coincide with the launch of the machine has forced a number of companies to cobble a few extra screens onto the tail-end of existing games. Mikro-Gen is no exception.

Three Weeks in Paradise — 128 version — is the proud owner of six new screens and three new objects. Those are fairly easy to find as you start off with the first one — fly paper — and the other two are very obvious.

The only tricky part of the new extended game is to find the screens. A quick exploration will show any of you who know the 48K version that there is only one place the extra screens could be lurking.

They are extremely easy to negotiate, provided you are carrying the right objects, and, due to the lack of warning given by Sinclair, they are distinctive in their simplicity and lack of blazing colour. The screens also differ in their content — instead of jungle, a space theme is prominent and aliens take the place of bats and indians.

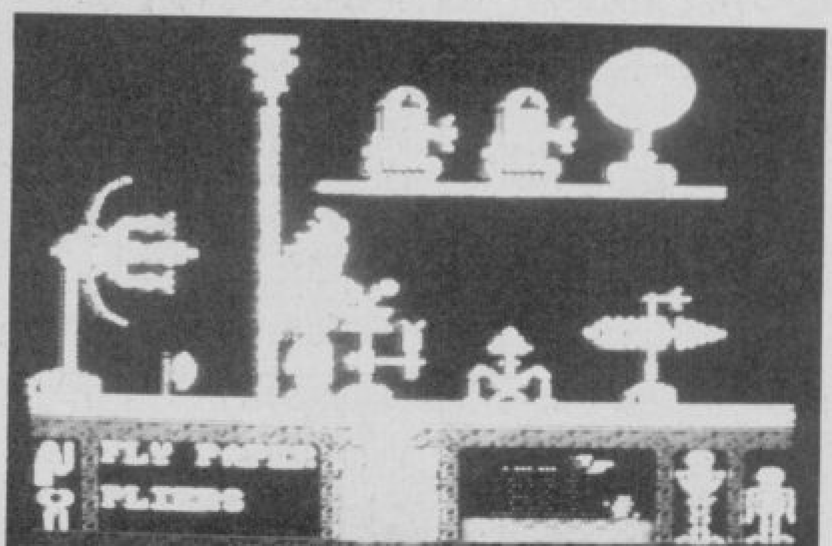
Just saunter through the new screens, dodging space invaders, slow-flying bees, two monkeys and an electric charge and three screens of bouncing aliens. The axe lies in the last screen and you must collect that to cut down Wilma.

SOFT 5 WARE

The music on the 128K version is the same as that of the 48K game but is much enhanced and can be controlled through the TV. I'm not surprised the sound has been left in its original state, the 48K version was excellent and those pathetic beeps even managed to sound tuneful.

As the new screens add an extra, if small, challenge and the price has risen by only one pound, I feel that the 128K version of **Three Weeks in Paradise** deserves to keep its Classic symbol. *Clare Edgeley*

Publisher Mikro-Gen
Programmer David Perry
Price £10.95 **Memory** 128K
Joystick Kempston, Sinclair
★★★★★



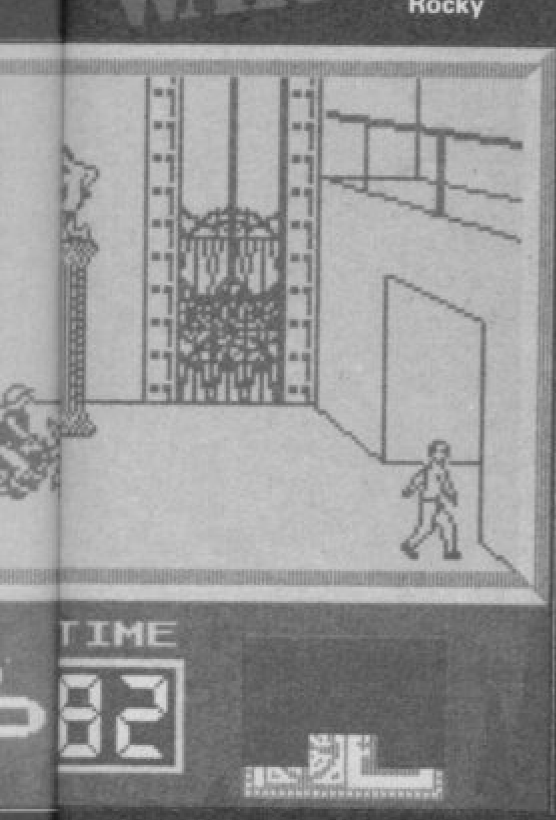
SOFT 3 WARE

populated by weirdos: Riff-Raff the butler, with his raygun; Magenta, his sister; Columbia the groupie; and Eddie, the rocking biker from the deep freeze. There's also Rocky Horror, a 'creation'.

Provided you take care not to step in front of Eddie or Riff-Raff, or walk into the sparks in the gym, then the game boils down to a fairly routine matter of picking up keys and bits of the machine, unlocking doors and engaging in meaningless one-sided communication with the various loonies. It's not even mildly enlivened by losing all your clothes when you encounter Magenta.

This version has an added title sequence with four dancers doing the pelvic thrust to the strains of *Let's do the Time Warp Again*. The same tune plays continuously thoughout the game, accompanied by the odd squeak or two, until you turn the sound down on the TV in exasperation.

Good graphics, reasonable animation, tiresome music and monotonous gameplay; we gave it three stars when it appeared last summer, and there's little reason to change that rating. Strictly for the freaks. *Bill Scolding*



Publisher CRL
Memory 128K
Price £9.95
Joystick Kempston, Protek, Sinclair
★★★

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Bach to the future

Making music on the 128. Chris Bourne lets rip on the new sound chip



POOR SOUND has always been a cross Sinclair users have had to bear, right from the early days.

The ZX80 and ZX81 had none at all, while the Spectrum has that godawful Beep, pathetically inadequate for most games and difficult to program. The QL does rather better on noise levels but has one of the most awkward Beeps known to computing man, with masses of numbers after each command to define the sound.

The 128 heralds a new era in the history of Sinclair beeping. For the first time there's a decent sound chip — the same one as is used by Amstrad. Not only does it provide three sound channels through the television speaker, but it's easy to program as well.

This article is designed to take you through programming a simple piece of music on the 128 and on the way demonstrates some of the facilities available. We're going to use a prelude by Bach, who usually sounds quite good on electronic instruments.

First things first, though. How is the sound going to be stored? The 128 uses three strings — a$, b$ and c$ for storing the three separate channels, or voices. A new Basic keyword, Play, produces the sound. The program is therefore going to look like this:

```
10 LET a$="some music"
20 LET b$="some more music"
30 LET c$="other bits of music"
40 PLAY a$, b$, c$
```

For musicians, figure one shows the first three bars of the music we're going to program. To make things simple, we'll start with c$, which is going to hold the lowest notes in the piece.

The first note is middle C, and is represented by the letter C. But how does the computer know which C to play — the middle one, or an octave higher, or what? There are nine ranges allowed, which overlap and span two octaves each. The bottom half of one range is the upper half of the next, so there are two ranges containing any one note. We want a range with middle C in the middle — octave 4. So the first line in the string is O4C. From now on any notes will be taken from that range — capital letters indicate the upper half and lower case letters the lower half.

So far so good, but this note is in fact a whole minim long — two full beats. If you don't specify the length the computer will play crotchets — half what we want. So we give it the value 7, which means minim: "O4N7C". The N is used to separate two numbers.

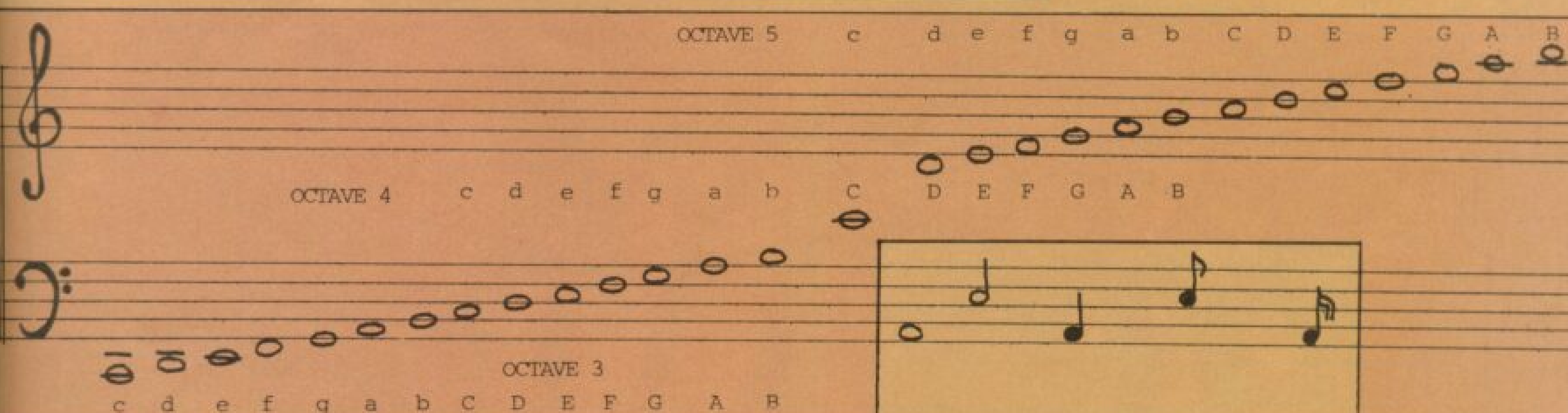
The next note is also a minim, so we can write "O4N7CC" without repeating the 7, as all notes will now be minims until that is changed. The next four notes in c$ are also minims — two Cs and two Bs. "O4N7CCCCbb". The small letters for B indicated that we are now in the lower range of octave 4.

That's c$ for the first three bars; b$ holds the notes in the middle — those are more complicated. They're all close to the c$ notes, so we can still use octave 4, but they start with a rest — a piece of silence. The sign for a rest is &. This rest is a semiquaver long — one quarter beat — which has the number one, and consequently we get "O4N1&".

After that there's a longer note — a dotted quaver plus a crotchet tied together as one note. That's 1¾ beats, and there's no number for that. But a dotted quaver is four and a crotchet five so "4_5E" means



Figure 1. The first three bars of a Bach prelude



The three note ranges used in the program. Notice how A in octave 3 is the same note as a in octave 4. Middle C is in the centre of octave 4

The five basic note values — semibreve, minim, crotchet, quaver and semiquaver. A dotted note would have the same value and half as much again

▶64

◀63 tie the two together on note E, giving us "O4N1&4_5E".

The next note is exactly the same — 1¾ beats on E with a rest in front. You don't have to write it all out again, though. Putting a pair of brackets round the bit to be repeated will do the job. "O4(1&4_5E)". Because we've a bracket now between the 4 and 1 at the beginning, we don't need the N to separate the two. The other b$ notes are very similar, giving "O4(1&4_5E)(1&4_5D)(1&4_5D)". You can't use double brackets here to repeat three or more times, as two brackets means repeat for ever, and we don't want that.

The final voice is a$, which starts with a quaver rest followed by six semiquavers. The pattern is repeated throughout, so, just as in b$ we can save space with brackets.

"O5(3&1gCEgCE)(3&1aDFaDF)(3&1gDFgDF)"

Notice that we started with octave 5 to give a higher range for these upper notes, and the way it switches from lower to upper case letters as the mid-point of the range is passed.

Although a$ is now much longer than b$ it takes the same time to play because the notes are shorter. But how quickly does the computer play the music? If you don't specify a time, you get 120 beats per minute, but you can see an instruction on the music for 108 beats. The command for that is T108. That only needs to be put in a$ — the other channels will keep time with it. So, at the beginning, we get "T108O4(3&1 . . ."

```
  10 LET a$="UX2000W0T108O5(3&1g
CEgCE)(3&1aDFaDF)(3&1gDFgDF)(3&1
gCEgCE)(3&1aEAaEA)(3&1#faD#faD)(
3&1gDGgDG)(3&1egCegC)(3&1egCegC)
(3&1d#fCd#fC)(3&1dgbdgb)(3&1eg#C
eg#C)(3&1daDdaD)(3&1dfbdfb)(3&1c
gCcgC)O4(3&1aCFaCF)(3&1aCFaCF)(3
&1gbFgbF)(3&1gCEgCE)(3&1$bCE$bCE
)(3&1aCEaCE)(3&1aC$EaC$E)(3&1bCD
bCD)(3&1gbDgbD)(3&1gCEgCE)(3&1gC
FgCF)(3&1gbFgbF)(3&1aC#FaC#F)(3&
1gCGgCG)(3&1gCFgCF)(3&1gbFgbF)(3
&1g$bEg$bE)3&1faCFCaCafafdfdO5N3
&1gbDFDbDbgbdfedV15N9C"
  20 LET b$="O4(1&4_5E)(1&4_5D)(
1&4_5D)(1&4_5E)(1&4_5E)(1&4_5D)(
1&4_5D)(1&4_5C)(1&4_5C)(1&4_5a)(
1&4_5b)(1&4_5$b)(1&4_5a)(1&4_5$a
)(1&4_5g)(1&4_5f)(1&4_5f)(1&4_5d
)(1&4_5e)(1&4_5g)(1&4_5f)(1&4_5c
)(1&4_5f)(1&4_5f)(1&4_5e)(1&4_5d
)(1&4_5d)(1&4_5$e)(1&4_5e)(1&4_5
d)(1&4_5d)(1&4_5c)1&4_5_7c1&4_5_
7$c9E"
  30 LET c$="O4N7CCCCbbCCCCCCbbb
baaddggggffffeeeeddO3ggCCCCff#f#
f$a$agggggggggggggggcc9c9c9c"
  40 PLAY a$,b$,c$
```

Figure 2. The complete listing

A full listing for the piece, Prelude 1 of the famous 48 Preludes and Fugues by Bach, is given in figure two.

You'll notice a couple of extra symbols have crept into the full listing. Flats and sharps are denoted by $ and # respectively. They apply to the note following.

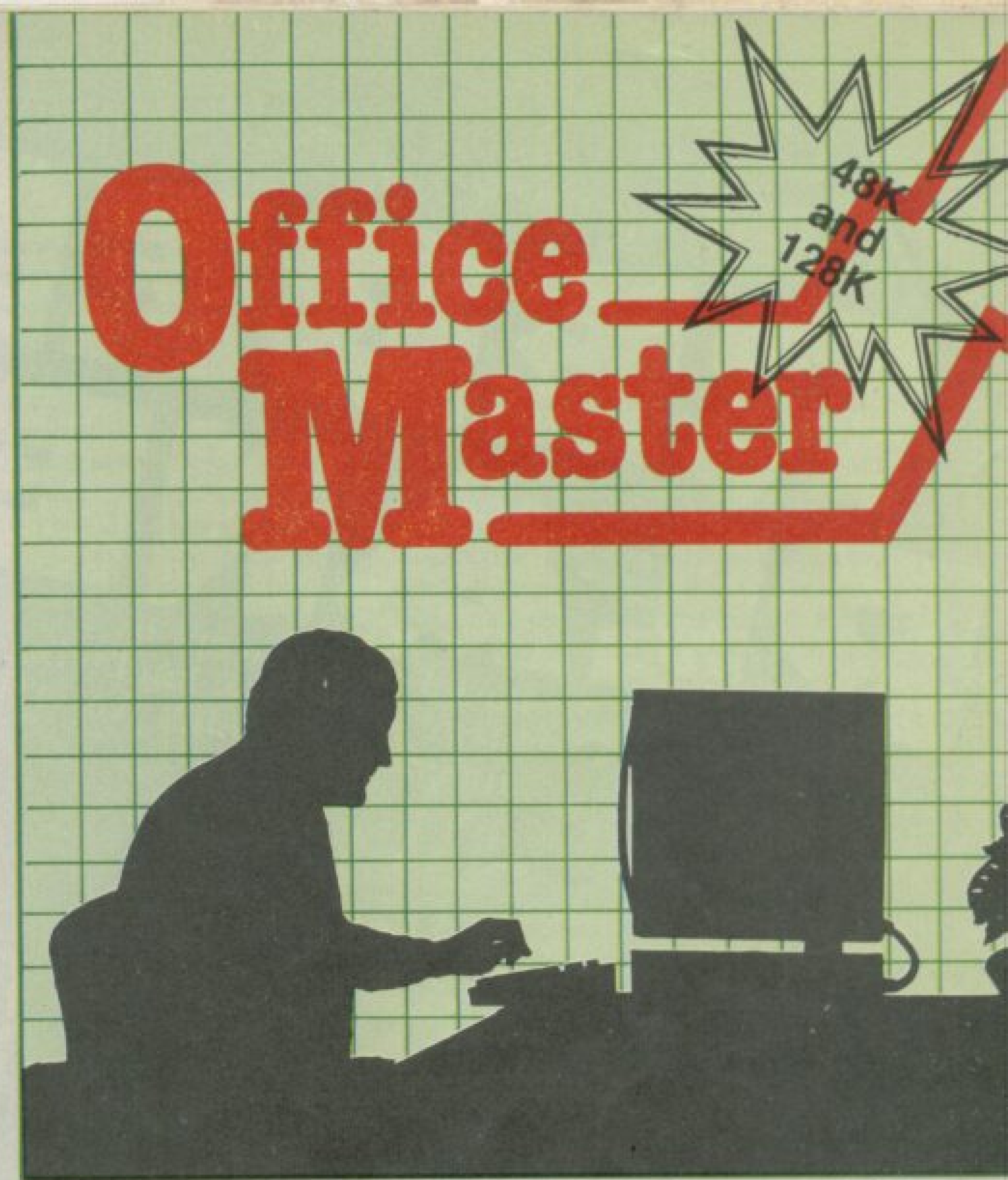
The letter U turns on various volume effects. There are eight in all, and the listing uses W0, which fades the note out for the duration of X. That gives a sort of old-fashioned piano sound to the notes as they swiftly die away after they have been 'struck'. The other channels are left as they are — like an organ accompaniment.

V15 at the very end of a$ is a simple volume setting. You can go from 0 to 15, 0 being silent. All music is played at the highest volume if V is not set, but here I've used it to cancel the previous effect to keep the final note sounding until the end.

Other sound effects given by U and then W allow the sound to build over the period of X, decay and hold, build and hold, and also to have repeated mixtures of the two. With the right choice of duration, you can get all sorts of sound, ranging from plunkety-plunk piano to noises sounding suspiciously like mouth-organs and mandolins. By combining the effects across all three channels, you can get even weirder sounds.



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Adventure Helpline



Gordo Greatbelly, landlord of the Dancing Ogre, offers help to lost adventurers

WE TOOK the southern military road from Urtuun to Maru, heading into the scrubland and then the desert proper.

Our stay at Urtuun had been fruitful but we were glad to put the stench of its streets behind us. All of us seemed to have enriched ourselves — myself from the proceeds of the eating contest, Iubba from the sale of a gem which we all suspected was the Eye of the Snake Mens' god Szasassa.

Zul and Zel, being small, had taken a part-time job as rat-catchers in the town's ancient sewers, receiving a bounty on each catch they made. Zul informed us that they had found it best to catch them with their teeth as they crawled along on hands and knees. The twins' smell had certainly grown since taking on this venture — both considered this a vast improvement. We made them ride downwind and wore kerchiefs over our faces.

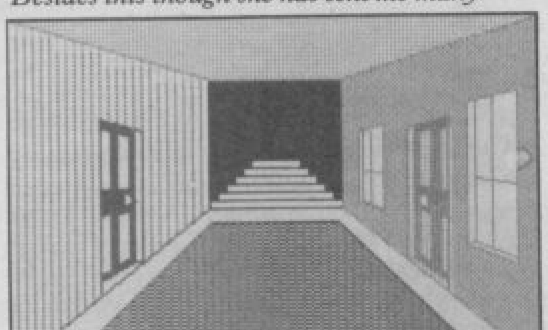
The empty zone extends for three days' ride and the few water-holes are secret, known only to the black-robed riders who patrol the region. This secrecy is to ensure that any invaders will be near dead of thirst by the time they reach the first garrison, easy meat for the savage fighters who are based there.

Fortunately we had provided ourselves with stocks of meat, water, wine and ale for the dry trip and, as twilight came, found ourselves in a sandy wilderness where the red rocks were split and torn by the awful heat. As the brilliant desert stars came out we pitched our tents in the lee of one of these outcrops, lit our lamps and partook of a side or two of beef, washed down with a half-hogshead of strong ale. For the first time in many moons I was able to browse through my mail by the glimmer of my trusty oil lamp.

First was a missive from Basher the Black and his Lady Patricia. They dwell at 137 Legahory Court, Craigavon, Northern Ireland BT65 5DF and have completed 30 or so quests including **Sherlock, Mordon's Quest, Planet of Death** *and the* **Ket Trilogy**. *They have also unravelled* **The Secret of St Brides** *and offer a hint or two to ease your way.*

"Are you grown 12 feet tall and too big to go places? Munch on the other side of the mushroom to shrink again. Do you know a Fir Bolg who craves entertainment? Write it down and rub it out! And those of you who are stumped by the blasted oak should try turning your cloaks inside out." This couple will help those who send their questions with the return post paid.

This mushroom clue should help the fair Korah Swiftaim who writes again from Salisbury for aid in shrinking. Besides this though she has sent me many details of **The Worm in Paradise**, *Level 9's newest spell. "Greetings O Gross One," says she. "I put quill to parchment to give some general guidelines to getting about Enoch City. After you have successfully negotiated the Dream of the Worm you should break your collar and wear it again — you will feel freer for this. If you wish to return home just say 'home' on the pedways. When you are carried to the ET system you need only go south to enter your hovelish habihome.*

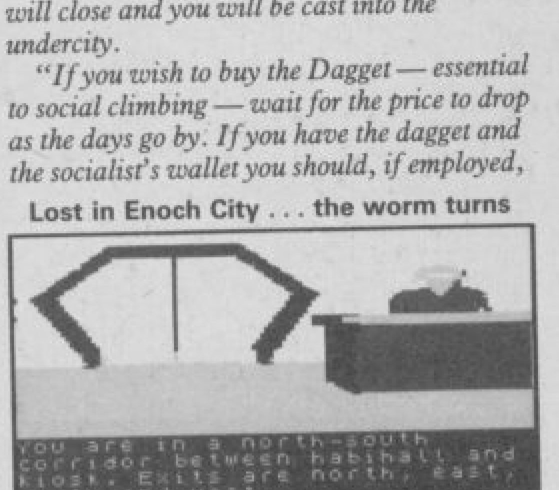


Mushroom-munchers invade St Brides

"Once home you will find a poster on the wall, a crack and a nozzle. If you say 'on' the poster will show itself to be a TV screen — the propaganda on it may give you much useful information about the city. Regular showers are vital so just say 'on' to the nozzle to refresh your tired limbs. Most important is the crack — saying 'bed' will show it to be a foldaway bed. If you say bed while lying on it, the bed will close and you will be cast into the undercity.

"If you wish to buy the Dagget — essential to social climbing — wait for the price to drop as the days go by. If you have the dagget and the socialist's wallet you should, if employed, be able to find the man's apartments and obtain a useful invitation." This and more she tells me but this is enough to get you well started. My thanks Korah.

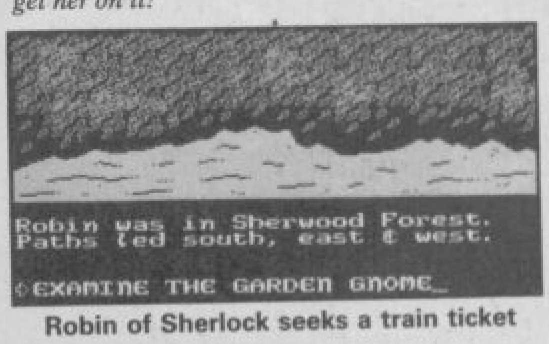
Lost in Enoch City . . . the worm turns



Archmage Haldane of 45 Westfield Road, Manea, Cambridgeshire PE15 0LS seeks help with **Quest**, *wishing to know how he can escape from the forest without the need to kill himself and be reincarnated elsewhere. To the best of my knowledge there are two clearings in the forest. Each has passageways going underground beneath it. One is dangerous, the other clear of hazard. Heading down one of these will bring the Archmage to a cave system where an important scroll can be found.*

The Archmage says he has 485 points and rates as an expert — he will help others in the **Quest** *if they write prepaid to him with their questions.*

Russell of Uphall, West Lothian is flummoxed by **Robin of Sherlock**. *He tells me he has found the dog, Toto, purchased a railway ticket and boarded the train. But still it does not move! Well, the train is not there to carry such as Russell — fortunately it will take the unbearable Dorothy off to Huddersfield. Get off it and get her on it!*



Robin of Sherlock seeks a train ticket

Cutter Taylor of Vicarage Farmhouse, Amber Hill, Sutterton Drive, Boston, Lincs PE20 3RS answers Freeman David's request for any help at all in solving **The Helm**. *He suggests the way to get over the first problem is to tie a rope to the hook and then go fishing in the lake. With patience this angling should deliver up a key which will open a door in the village. Inside the door is a shovel which can be used to dig up a board from beneath the sign. The board can be used to bridge the gorge leading to a cave. This should get Freeman started.*

As well as **The Helm** *Cutter can offer knowledge of* **El Dorado, Subsunk, Magic Mountain, The Hobbit** *and* **Espionage Island**. *Write prepaid with your specific requests. In return he would like to find a way to avoid drowning in* **Sinbad and the Golden Ship** *and where to locate two remaining parchments in* **Invincible Island** *— he has those from the Chest, Box, Cave, Pit and the small Island.*

Burridge the Burrower of Rayleigh has had problems in escaping in **Subsunk** *and also in hunting the* **Eye of Bain**. *In the latter he is badly pecked by a magpie who is protecting her nest from his curiosity. Digging in a field will unearth some tasty wriggling morsels for the bird and win its*

► 68



67 ◄

favours. Now to **Subsunk**.

Both Burrower and Banyard of Sussex cannot obtain the headache pills from the medicine cabinet. Marshman Reed of St Helens provides the answer. "Use a paperclip to pick the lock on the cabinet and reveal the pill bottle. Then drop the black rubber mat on the floor and empty the bottle. Dissolve the pill in a beaker full of water — there, no more pain in the head. But beware! The beaker must be filled with water before you have cleared the overflowing sink with the plunger — otherwise there will be no water to wash the pill down."

This is not Submariner Spencer of Exhall's problem — he needs to know how to open the locker in the submarine. Hugh Watter (or so I read it — this for the benefit of Five Best



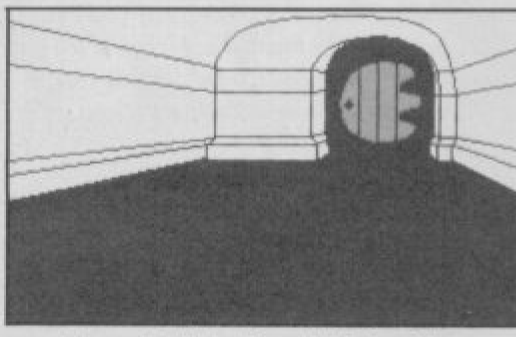
Subsunk headaches get the treatment

Shaw, ha!), Hugh Watter of 7 Burnet Avenue, Burpham, Guildford GU1 1YD tells us the locker is simply opened by twiddling the hook — the headache cure may give a clue to this as well. Now Hugh is a vastly experienced traveller and has completed nigh on six score games. He will offer help if you write prepaid, so pass your enquiries to the courier quickly.

In answer to Sir Malcolm Beal's plea for a screwdriver blade to **Escape from Pulsar 7**, *Hugh believes that there may be one concealed in a toolbox on the lathe in the workshop.*

Offering help too is Mad Max of 56 Amados Drive, Plympton, Plymouth PL7 3TT. For a stamped envelope he can answer specific questions on **Red Moon, Urban Upstart, The Hobbit** *and* **Planet of Death**.

Ringseeker Reily of Northallerton sends me two letters, first a request for news of the rope in the third quest of **Bored of the Rings** *and then the answer to his own plea, to be told for the benefit of other travellers. "Rejoice with me, for that which has been lost is found! Advise travellers thus — the rope can be found in the second quest, near De Lorian. It serves no purpose in that episode but, if it is taken and kept, helpful advice will be given at the end of that part. Heed this counsel. Keep the rope after you have left the mountains in the third quest — it will be needed again." Take note, O Bored Ones!*



Tunnel talk in Bored of the Rings

Many of these folk still cannot get through the Morona Maze — to this multitude, too many to name, I say follow the directions given on the map but look eastward near the end, for an Italian Stallion.

Tancredi Denofrio of Kingston Stert passes on news of **Fairlight** *and its final moments, saying, "To complete the quest you must have the crown. Go to the caverns and unlock a secret door down the passage that leads to a troll. In the room you will find a coffin — open it and fall down.*

"You must then get the book and go back through the door. Head for the tower which is guarded by three monks and kill the first one with a cross, the other two with potions. At the top of the tower is the Wizard himself and you must push the book into him. Get the key and go to the main gate."

Gardener Griffith of Cheltenham suggests another way to enter the Wizard's room and advises jumping through the roof, off barrels placed on the top of the tower. He also cautions you all to conserve crosses and potions. These will kill off all spectres if kept solely for that purpose and it is essential to keep one until after you have entered the Wizard's room.

From Simon Allbey of Taunton come tips on the completion of **Enigma Force**, *a way which will keep all characters fit for the final scene on the bridge of the shuttle. "First send Syylk into the room next to the insect armoury where the creatures are standing still. In a while a treaty message will appear. Now kill Zoff and take Zoff's card. Find the blue key card and open the insect armoury then use the Zoff card to open the next door. Go down. Move all the characters into the shuttle and your mission will be finished. Good luck!"*

Describing himself as a seasoned ale-swiller, Oaktree Hutchings of Nottingham begs for news on the use of the pale green jewels in **Lord of the Rings**. *An old friend, the Lady Sheila of Duxford, advises him to use one to see off the Barrow Wight. Her problem is in* **Spoof**, *however, and she begs someone to tell her the way to board the shabby green barge in this quest. Let me know, friends, so I can ease her pain.*

So the oil ran out in my lamp and I lay staring out over the moonlit sands of the Central Desert. Something moved out there, briefly but noticeably. Reaching for my club I got up soundlessly and roused the others. Who can have followed us to this empty place?

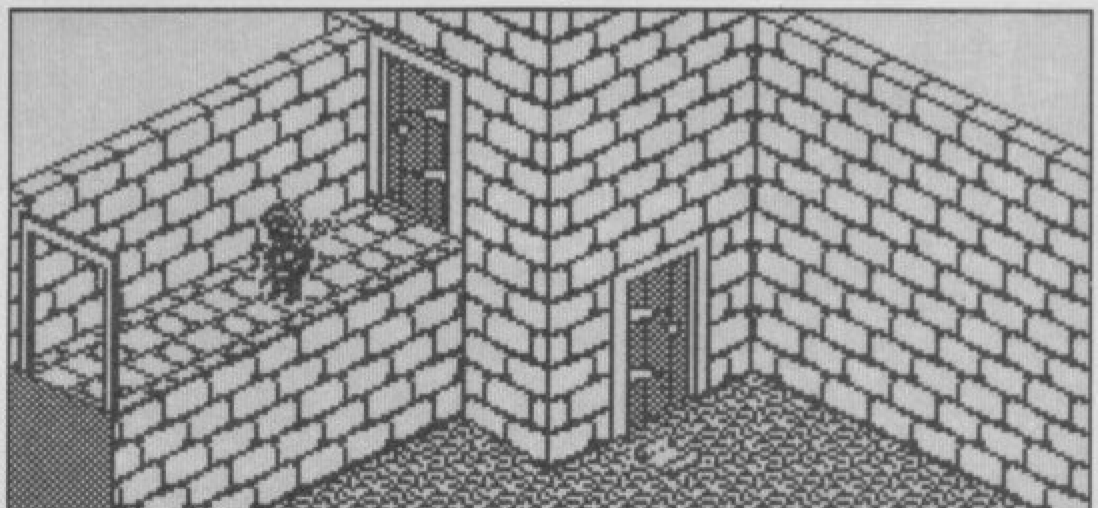
More next moon, my friends — let me know of all your travels. Farewell.

Greatbelly

Gordo Greatbelly, Landlord

If your have a tale to tell, or are in need of a helping hand, write to the Landlord of the Dancing Ogre c/o Sinclair User, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.

Final advice for Fairlight adventurers



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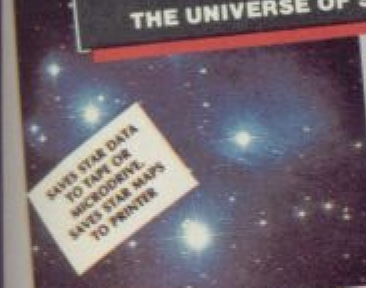
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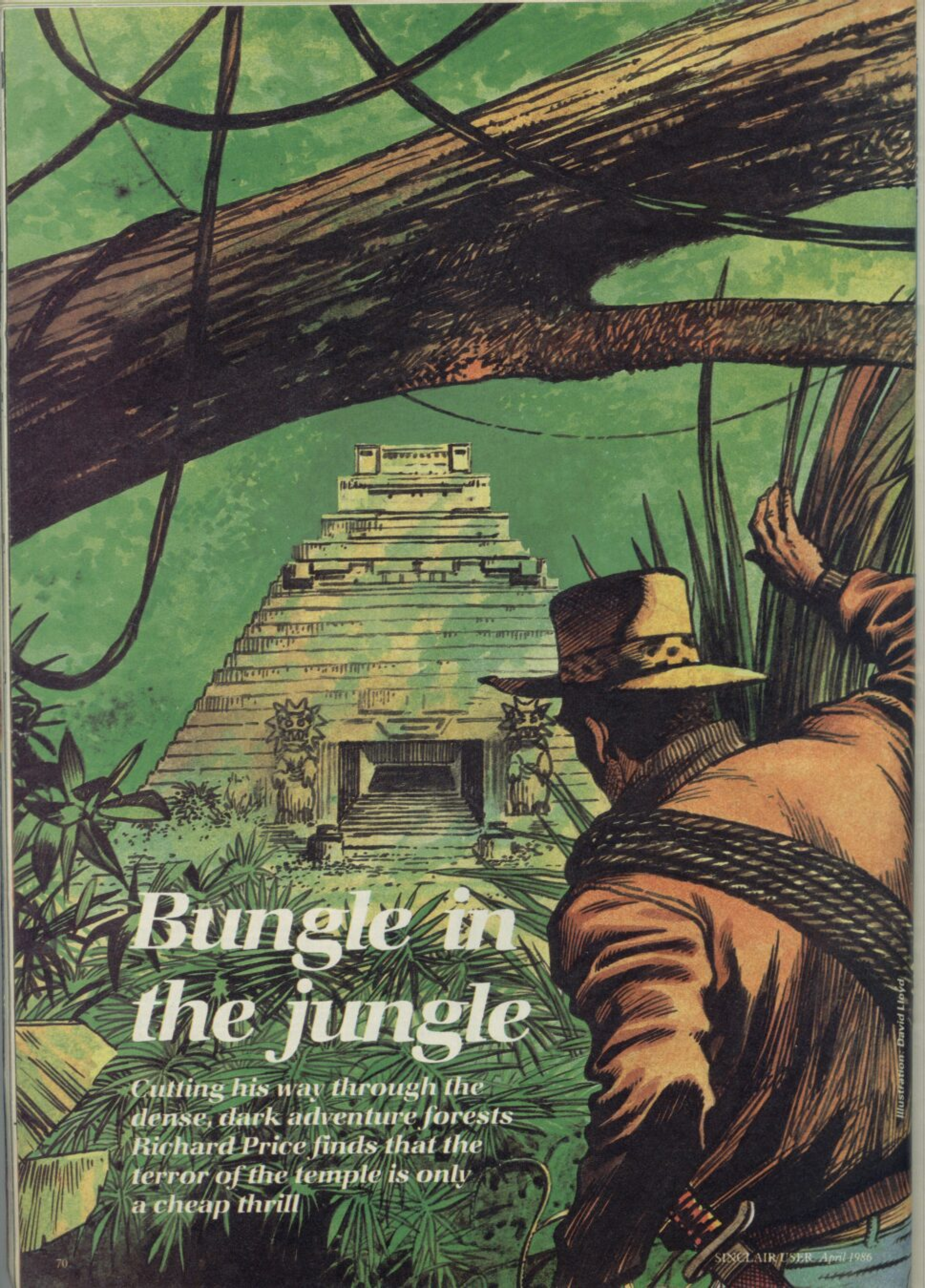
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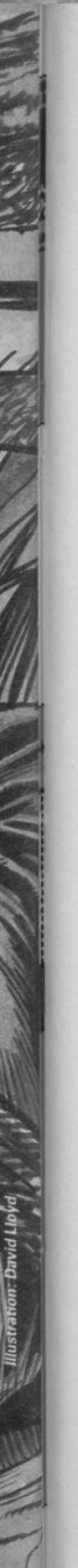
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Bungle in the jungle

Cutting his way through the dense, dark adventure forests Richard Price finds that the terror of the temple is only a cheap thrill

Illustration: David Lloyd


Illustration: David Lloyd

ADVENTURE

UNLESS YOU HAPPEN to be one of the lucky few whose games are taken on by one of the big companies with their huge advertising muscle, being a creator of home-grown adventures can be a very isolating experience.

These days very few top price games are marketed without graphics and, although the **Quill** *and its various supporting programs can deliver excellent and fast presentations, it is still very difficult to sell an 'amateur' game to anyone beside the budget software houses — Atlantis and Pocket Money Software are two companies which spring to mind.*

Things get even tougher if you have used a text-only format, because some of the main retail outlets simply won't sell plain text games any more. Even large and very fine games like **Mordon's Quest** *don't have the profit potential of arcade games.*

This is a shame, but it's just a reflection of market forces, economic reality, blah, blah — you've heard it all before and you are no doubt as sick of the sound of it as I am. I still happen to think that text adventure, with or without graphics, is one of the most satisfying and challenging types of software.

So what are you going to do to get your game to that great and waiting public? If all else has failed you're only left with mail order. Whilst that is unlikely to make you a million it may get you known, especially if you're prepared to take the risk of sending games for review — there's one in the column this month. People like Delta Four got started this way and, if you've got a quality product, there's always the chance that some professional outfit will want to buy and market your game.

Which brings me to the point — I'm always prepared to review adventures whether they're mega-games or put together in the spare bedroom. If a game is finished, entertaining and fairly original, and if you can guarantee to supply copies to your buyers without hitches then I'll do my best to persuade old Incorruptible to include them in the column.

I think it's one way to keep adventure alive and kicking, to introduce new talent and to keep the big cheeses of the software industry on their toes. But please, not too many vampires and silver bullets — the undead have been done to death too many times.

Temple Terror

IN THE steaming depths of some remote tropical rain-forest, Archie the Adventurer is on a desperate mission.

Daughter Jane, it seems, is at death's door, suffering from an unnamed incurable disease. Standard medicine offers no hope of a recovery.

This depressing news has persuaded Archie to don his backpack and shorts and brave the jungles in search of a newly-discovered temple. Rumour has it that a fabled elixir of health is secreted in the temple's innermost depths. Others have already tried to unravel the mystery of the temple but, ominously, have never been heard of again.

So off goes our Archie and, at the beginning of **Temple Terror** from Atlantis, finds himself sweltering in the blazing sun at the entrance to the rearing bulk of the crumbling edifice. The heart-rending plot conceals a game which is really a straightforward exploration of the temple.

There are only three locations outside the temple and you will quickly discover that the sacred spot has already suffered at the barbarian hands of football supporters — some enigmatic graffiti produce the unlikely message 'Northampton for the Cup'.

The temple is entered easily enough by way of a moveable rock and you will soon find a light source and the mouldering remains of the other unfortunate explorers. Amongst their effects are handy items, like matches. There's a scroll with a useful message and, lo and behold, the only room with a carpet has a trapdoor beneath it to take you further into the building. There's a fire that blocks your way and a vampire to chill your bones.

After you've overcome your excitement you can then solve a monstrously simple code to enter the Elixir Room, indulge in a bit more jiggery-pokery to beat a forcefield and find a way out before the temple collapses.

Input is standard verb/noun and the action is text-only. There are the usual Save/Load facilities, a couple of abbreviations like T for Take and a reasonable response rate. There isn't really any need for much sophistication in the machinery as the game is so simple and direct. The descriptions are mainly two-liners.

The game is written entirely in Basic, and the action is very linear with one problem succeeding another in quick succession. The puzzles are not at all original and seem to own much to early Artic games — what would you do with a blanket when a fire blocks your way?

There are also not many locations, about 40 on my count. This does not make for a mind-bogglingly complex adventure if you're an experienced traveller through mysterious temples. On the other hand, if you're new to adventures and want to break yourself in gently and cheaply, the game is pleasant enough. Definitely for the novice, but the price bumps up the rating.

Richard Price

Publisher Atlantis
Price £1.99 **Memory** 48K
★★★

Murder Hunt

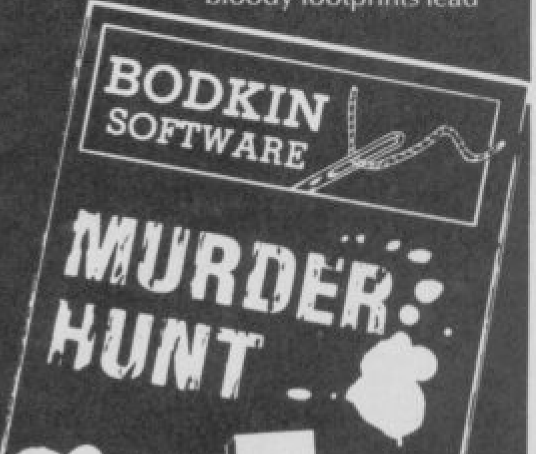
BODKIN SOFTWARE is the cover name for two young adventure writers, Craig Davies and Mark Hale. Using the old-style **Quill** they produced their first version of **Murder Hunt** sometime last year and got a short review in one of the weekly computer comics.

A few people bought the game, a text-only adventure, and Bodkin has now tried to sharpen the presentation with the aid of **The Patch**, introducing some sound effects and screen colour.

In the remote hamlet of Keggly dwells Father Paddy Murphy, stereotypical priest of St Ivan the Terrible church. One day, whilst the good-hearted pastor is fixing a hole where the rain gets in his church, the idyllic peace of this country backwater is shattered by a scream of pure terror.

In the graveyard below Paddy sees the body of his gravedigger George and goes down to investigate. George has been brutally murdered and a newspaper beside his body reveals that a "homicidal murderer" — well he would be, wouldn't he — has gone over the wall at nearby Studmore Prison. The last report was that he was heading in the general direction of Keggly.

Obviously he has now arrived and his bloody footprints lead

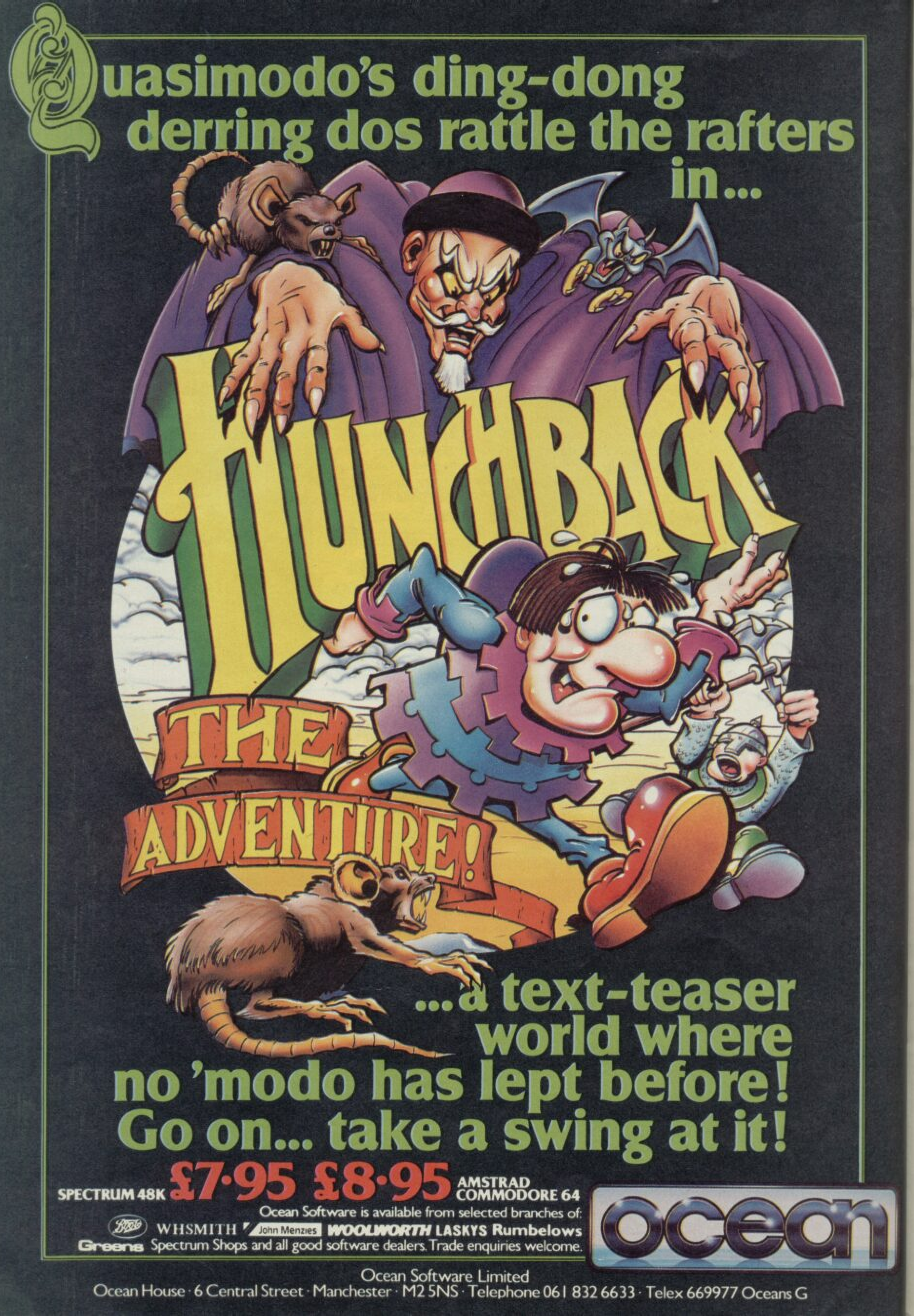


away from the graveyard into the woods around the village. Paddy sets off in pursuit and the hunt is on.

The plot is straightforward but the game is reasonably complicated. You begin your search in the churchyard and, after acquiring a few objects of uncertain use, head off into the wilds of Keggly and its neighbouring parishes to find the dastardly and cold-blooded killer.

A second killing awaits your attention

▶ 73


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71 ◄

down the lane. A search of the victim's clothing will give you a useful magic charm but you will have to spend some time quartering the fields, farmhouses and stately homes to get through to the murderer's hiding place. There are locked gates to break through, stone circles to investigate and a number of red herrings and pitfalls — literally — to negotiate.

The inhabitants of Keggly are not all predictable either — the reclusive aristocrat who lives in Haley Hall is quite likely to do you in if you trespass on his property and his servants are just as violent if you don't mind your manners. The tenant of the windmill up on the hill is thoroughly unpleasant and the only really nice person is the deaf old lady who runs the village shop. When you're totally stuck just remember that she will sell you absolutely anything you need provided you've got the cash for it — otherwise forget it.

You'll come a cropper many times before you capture the murderer. When you do find him you will have to return him to a suitable place of imprisonment before the game is over — that too has its problems, so don't be over-confident.

There are about 75 locations with good descriptions and plenty of action in a non-linear scenario. The countryside has a real feel to it: "You are at the top of 'Satan's Footstool'. In the centre of the hill is one large stone which is surrounded by 20 rectangular stones which have stood there since prehistoric times. They are known as Hell's-End Stones and are laden with superstition."

Messages too are atmospheric: "The charm is made of silver and is suspended on a silver chain. It is shaped like a moon with a sword of sacrifice sticking in the left side. This insignia is often attributed to black magic."

Touches like this give the game a high level of playability. Clues and objects are scattered far and wide and the game is carefully written with a certain macabre relish for the subject matter.

All told this game is good value and certainly comes top when compared to the other budget software reviewed this month. If you fancy a **Murder Hunt** you could do a lot worse than sending your £2.50 to Bodkin Software, 16 Carr Lane, Hambleton, Blackpool FY6 9AZ.

Richard Price

Publisher Bodkin Software
Price £2.50 inc. p&p **Memory** 48K
★★★★

The Hollow

THIS IS ONE of Gilsoft's back-to-back Quilled adventures, text-only on one side and graphic version on the other.

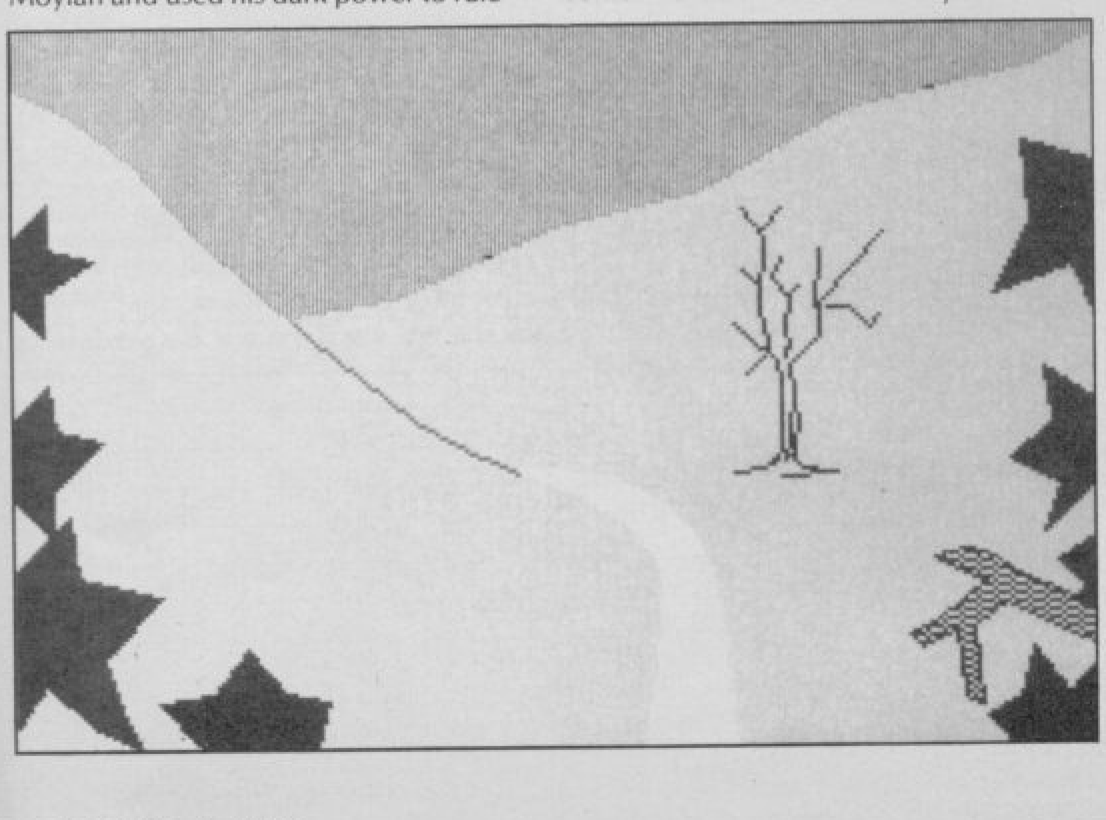
Although both games have the same title they're different enough to make you feel you've bought two games for the price of one — it's not simply a matter of repeating the same commands with each program.

First the text game. Long ago in the land of Moylan a wizard took power by imprisoning Light and Dark inside a single perfect stone. Then he split the stone and put the Darkness inside the greater part. The Light he banished to a far corner of Moylan and used his dark power to rule without mercy or humanity.

Time lost its grip over the kingdom and a changeless decay set in. Only the joining of the two pieces of the perfect stone will return the land to life and health.

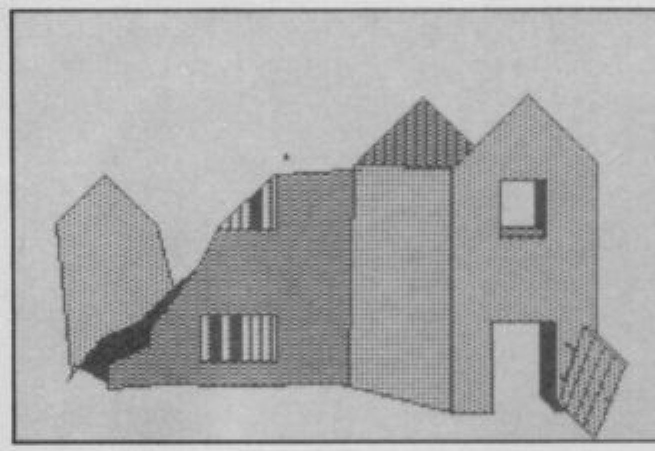
Your aim is to discover both parts of the stone and also to collect the seven remaining pieces of a magical medallion. Three are in your possession when you begin your quest. When all ten are united you may have enough mystic power to confront the wizard in his lair at the heart of Moylan's endless twilight, and thus take back the stone of Darkness.

The adventure begins on a cliff path somewhere in the west country. You are heading back to your holiday hotel, anxious no doubt to consume vast quantities of grub and lashings of ginger beer. Suddenly the path becomes unfamiliar and a strange cold seeps through your anorak. At your feet are the three fragments of a medallion.



Stranger still is the message nearby which tells you that magic can open every door and, if you gaze over the cliff, you will see weird riders with hunting trophies slung from their belts.

The opening sequence leads you into a derelict house. Careful examination of the door will give you magical powers which will be sorely needed on your journey. The stone of light is also here and you can now cross the threshold of reality into Moylan itself. "For as far as you can see a smooth, featureless wall encircles the ancient town of Moylan. A large iron gate has been set into the wall. Above the gate a dragon, cast in rough metal, looks down as guardian of the town."



Descriptions like this give the game a highly charged and dreamlike quality, and help to create a desolate landscape of shifting, ominous shadows where lethal surprises are commonplace. Almost everything seems threatening — pools ripple without wind, flowers have overpowering scents.

As you move in towards the centre of the evil the darkness increases and perils multiply. Snakes writhe, undergrowth rustles, volcanoes rend the earth and wolves scavenge in graveyards. And what desperation created this object: "At the meeting place of the roads a huge crystal lens stands on a plinth. The rays of the sun are fainter here but the power of the lens intensifies them so much that the point of focus glows with heat. You shade your eyes and look into the glow"?

In the second, graphic game the plot and presentation are quite different — to vanquish the Magician you must find and take his Sword of Judgement as well as collect the many items of treasure placed around the landscape. This adventure is pre-**Patch** and the location graphics are full-screen, drawn with the **Illustrator**.

Play commences in another derelict house but it has now become a major location. Through it you can enter another enchanted land complete with stone

► 75

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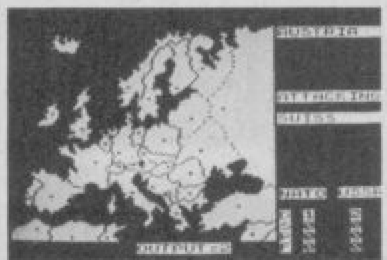
THE ART STUDIO

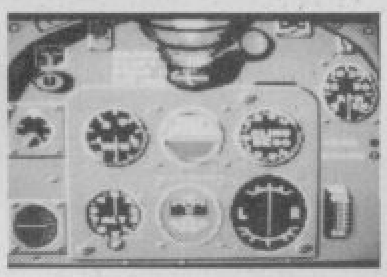
"Certainly the best graphics program ever designed for the Spectrum." (Popular Computing Weekly 12/85) "The program really makes the Z80 chip sing ... performed just like MacPaint on the Macintosh." (Personal Computer World 11/85) "Contains a printer driver which handles most compatible Spectrum printers. IT IS AN EXTREMELY POWERFUL UTILITY which should be of use to professional artists and designers as well as the home user." (Sinclair User 10/85) Works with keys, sticks or AMX mouse. 58-page illustrated manual. **Cassette £14.95**

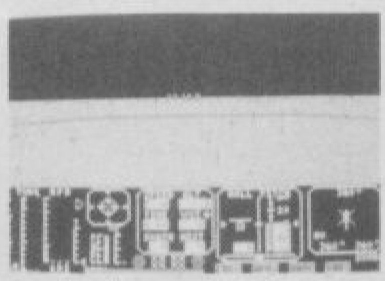


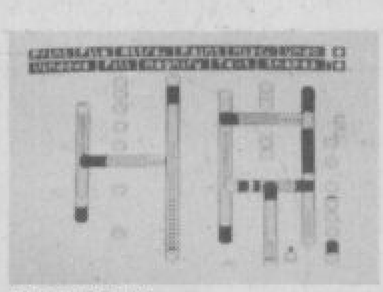
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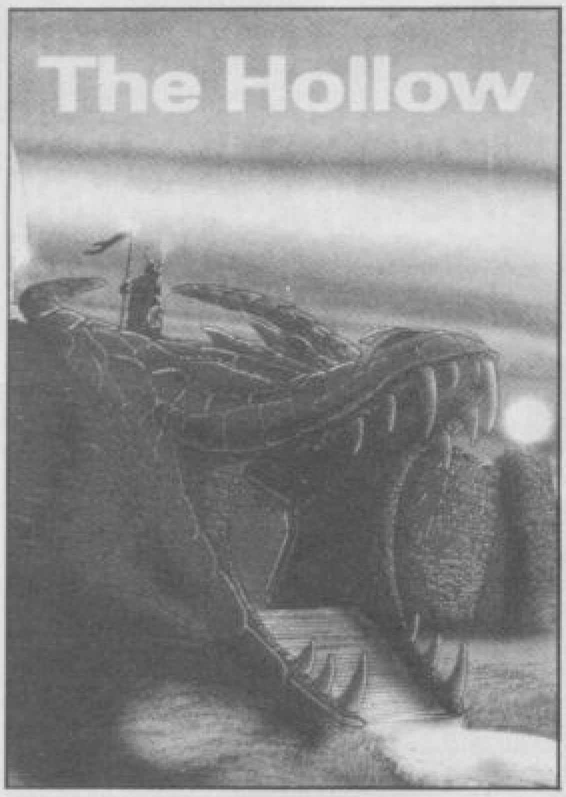
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4-86

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73 ◄ circles, giant worms, underground caverns and dying vegetation. There are familiar objects like a lamp, flint and so on but there are also items whose uses are enigmatic — pruning shears, flies, salt, ice. Whatever their uses you must travel on into the undying darkness, into unnatural evil and magic.

In this version the text is obviously less full and the pictures draw and redraw fairly slowly. Newer Quilled games, which use **The Patch**, have now overcome this problem to a considerable degree but the



pictures here do tend to intrude.

Both games are well-constructed with evocative and intelligent descriptions and puzzles. The **Quill** interpreter is as fast as ever and help is provided. In both games you will need to explore widely before solving the major problems and neither are likely to be solved in an afternoon. •

Richard Price

Publisher Gilsoft
Price £5.50 **Memory** 48K
★★★★

Runestone

RUNESTONE appeared in the middle of last year and was then a Games Workshop production. It was the first text adventure to combine landscaping graphics with full text input.

It also offered the chance to play three characters, Elf, Wizard and Warrior in their fight against the swarming orc-hordes of Kordomir the Dark One. The setting was a Midnightish world of battles and quests, a place where other subsidiary characters could be persuaded to join you in your fight against evil and the dark forces.

Firebird has now snapped the game up, revamped the graphics, smoothed off some of the edges and speeded the proceedings by rewriting some of the slower bits of the program. They've also put it in a striking package with parchment-style maps, fancy instructions and an outer box with lots of hunky heroes and red edging to catch your eye on the shelf — marketing psychology is a wondrous thing.

The scenario and game-play is essentially the same but the overall effect is of a considerable improvement in playability, thanks to the increased speed of the responses and the simple change of colour of the text areas. It's now comfortably dark, instead of the earlier glaring white, and that helps to keep your attention on the game rather than on the pain in your eyeballs.

The graphics have more colour than before and the character you are currently playing is shown as a head to the right of the landscape. These changes are not significant in themselves but do make the game seem more polished than the first release.

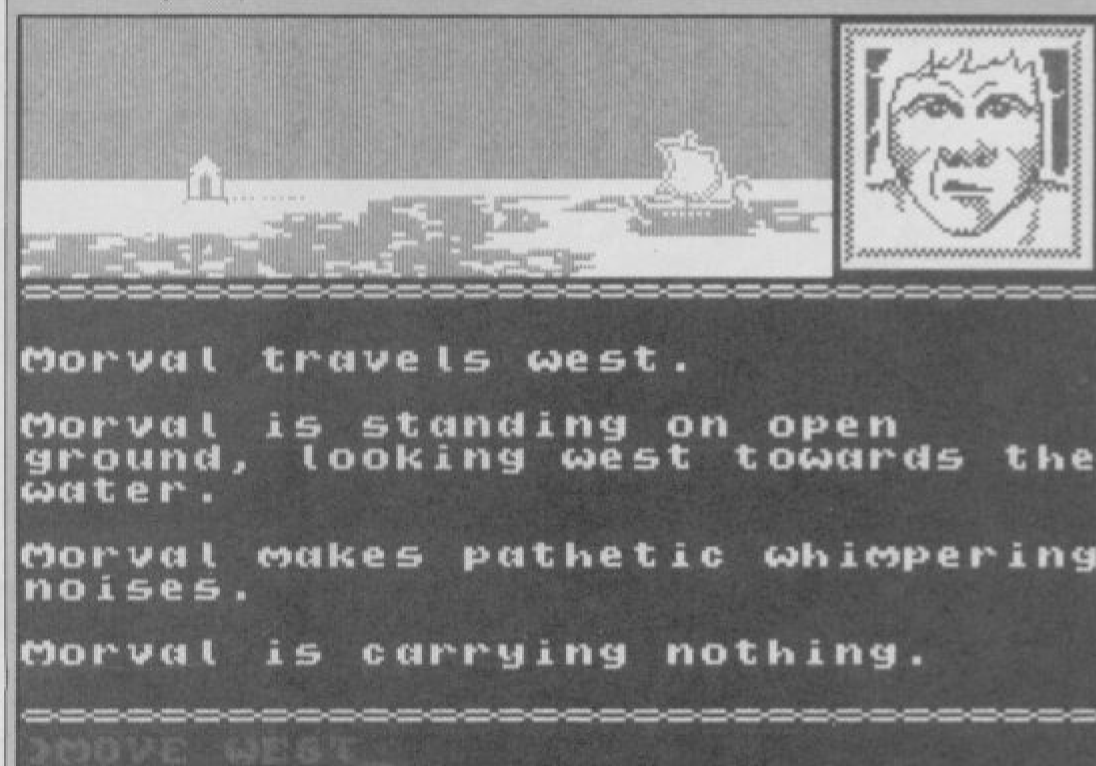
The world of Belorn is a complicated place with systems of exchange, combat, magic and thievery. The text interpreter is very competent, so you can attempt most things even if you only get a response like "Morval scratches his head and wonders what to do next".

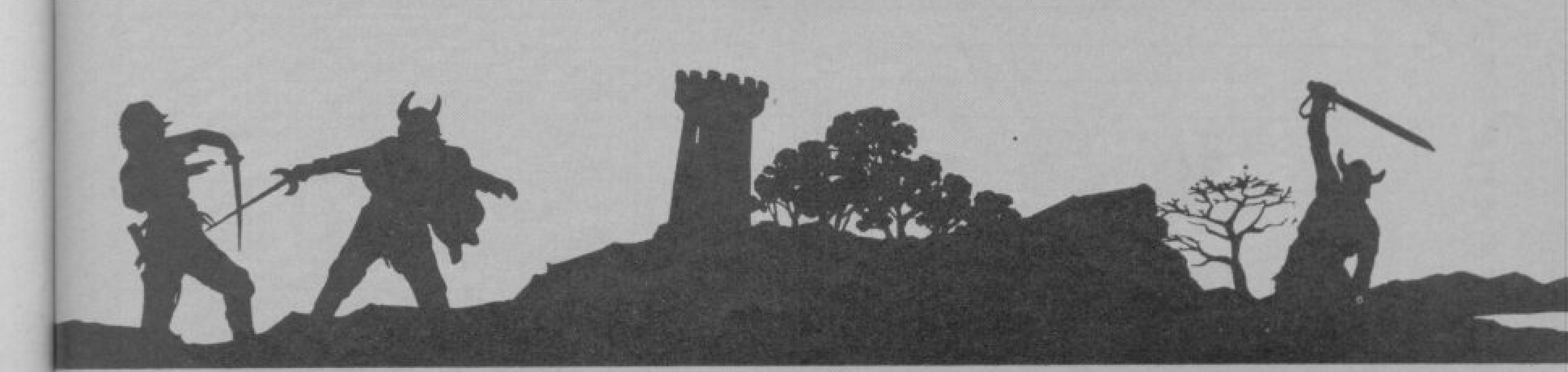
You can follow the quests, travel or go on orc-bashing safaris if you're in a macho frame of mind.

The new, improved **Runestone** is now in very good shape, looking and playing a whole lot smoother than before. What's more, it's being sold at the same price as the first version. To my mind that means it deserves an uprating on its previous four stars. •

Richard Price

Publisher Firebird
Price £7.95 **Memory** 48K
★★★★★





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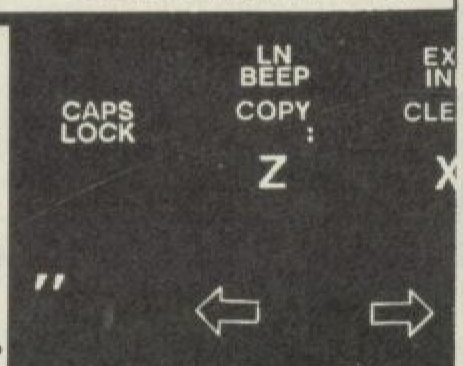
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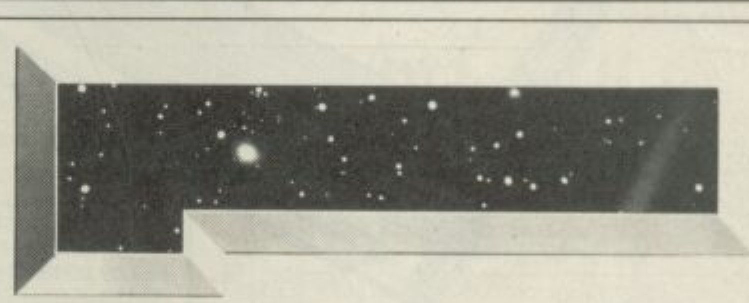
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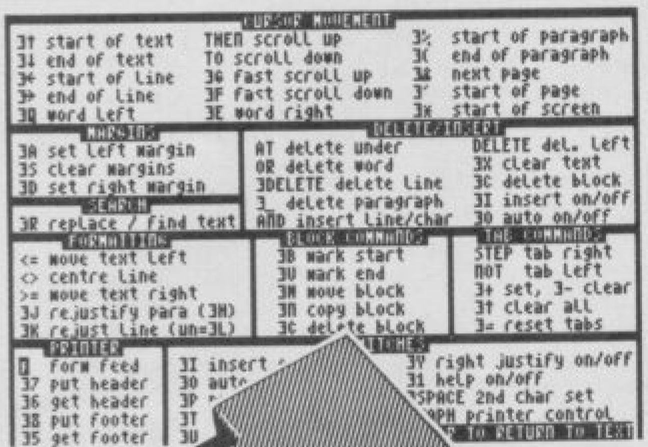
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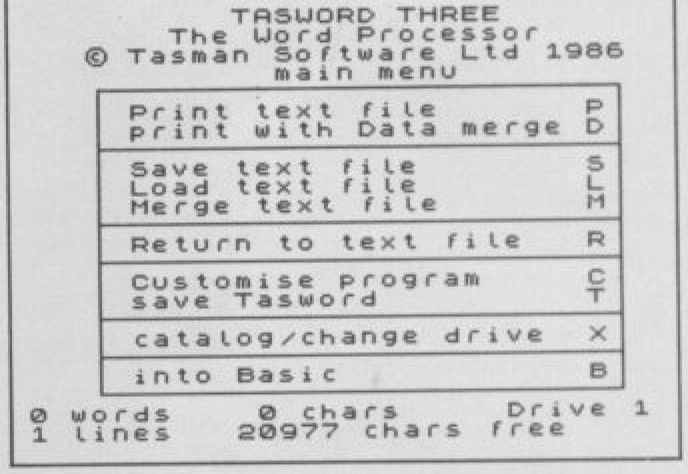
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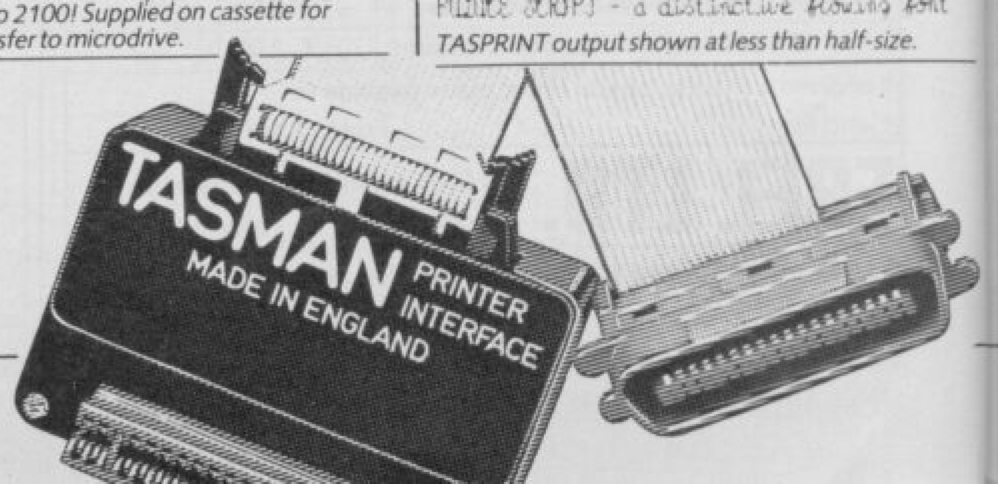
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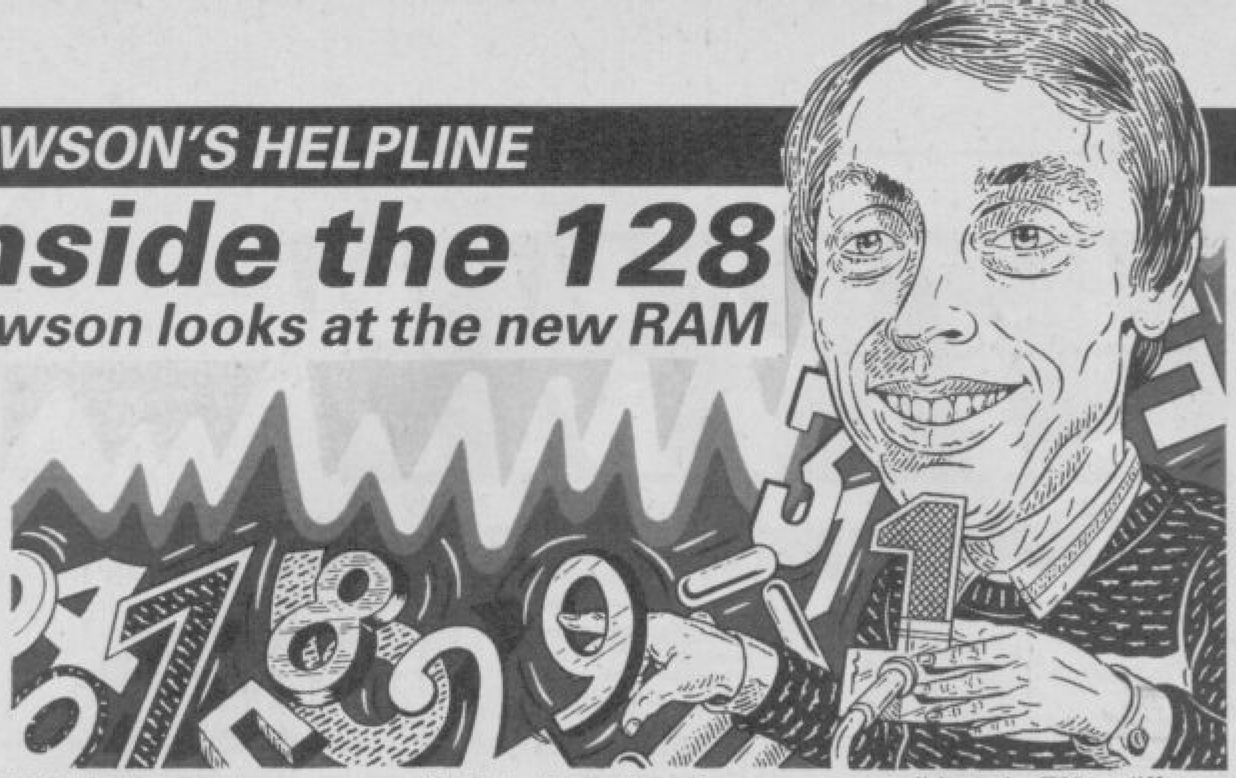
COMPACTA - bold and heavy, good for emphasis
DATA-RUN - A FUTURISTIC SCRIPT
LECTURA LIGHT - clean and pleasing to read
MEDIAN - a serious business-like script
PALACE SCRIPT - a distinctive flowing font

TASPRINT output shown at less than half-size.



Inside the 128

Hewson looks at the new RAM



AS I WRITE Sinclair has announced its new machine. I have known about it for some time, in common with a number of other software companies in the UK. However, we have all been bound by agreements not to breathe a word about it to the public.

Now the gag is off I thought you might like to know a bit more about using the machine for writing programs. The principle advantages are the extra memory which is available, the second screen memory and the new sound chip.

The extra RAM memory is a little difficult to get at, even when writing in machine code. This is because the total of 128K of RAM is divided into eight banks of 16K but the Z80 microprocessor can only address 64K of memory at a time, and that includes the 16K of ROM at the bottom of the address space.

In the new computer there are ten possible banks of 16K to be addressed, two banks of ROM and eight banks of RAM. The bottom 16K of address space is always used by one or other of the two ROMs, the next 16K can only be used by RAM bank number five, the next by RAM bank number two and the top 16K by any one of the eight RAM banks. Thus it is possible, although not particularly sensible, to have either of RAM bank numbers five and two accessible to the Z80 at different places in the memory simultaneously.

What would be more useful would be to have any one of the eight RAM banks appearing at any one of the three possible positions above the ROM, or, better still, appearing instead of one of the ROMs. Instead we are stuck with shuffling data back and forth via the top 16K of the memory map.

A new facility which will be of interest to machine code programmers is the second bank of RAM which may be used to hold the screen display. In the Spectrum the screen always resides at address 16348 — hex 4000. In the new machine this part of memory is in RAM bank number five. However, the new machine also supports the use of RAM bank number seven for screen memory.

Unfortunately RAM bank number seven may only appear at the top of memory as explained above. This does

How random is random?

***THIS MONTH'S LOOK** at the system variables focuses on the SEED variable stored at address 23670. This number is used by the RND function to kick off the next random number calculation.*

Creating random numbers in a computer is a funny business because strictly speaking it cannot be done at all. A computer is a machine which executes a series of stored instructions and given that the starting point is the same and the instructions are the same it will always obtain the same result. A random element is not permitted to creep in.

The usual way of getting round this problem is to use a sequence of instructions, or algorithm, which when fed a number, chops it around and rearranges its component parts rather like shuffling a pack of cards. In the jargon of the trade this is called 'hashing.'

Numbers which won't add up

THERE'S ONE TOPIC which appears in my postbag with the same kind of regularity as those infernal competition offers from *Reader's Digest*. Every mortal has his cross to bear, and the rounding error seems to be mine.

On this particular occasion it is John Jennings of Staines who is suffering from rounding errors. He clearly did not read my article in the May 1982 issue of *Sinclair User* when I first wrote about the problem! He includes a copy of the program which is giving him trouble and I have listed it in table one. The screen display when the program is executed is shown in table two.

John writes: I typed this test program into the Spectrum Plus demonstration model at a local branch of W H Smith and got the same result as with my own machine.

I really want to know whether there is a fault in my machine or whether this is a quirk of the Spectrum.

It is not a fault with the machine and it is only a quirk of the Spectrum in the sense that the computer tries in a rather half-hearted fashion to hide a problem with the nature of arithmetic from ordinary users. The problem is related to the fact that it is impossible to express some fractions exactly without rounding errors.

For example, we all know the following statements are incorrect:

$\frac{1}{3}=0.3$
$\frac{1}{3}=0.33$
$\frac{1}{3}=0.333$

No matter how many trailing threes we place at the end of the number the result is still incorrect, even if only slightly. We are so familiar with this example that we no longer consider it worthy of comment or investigation.

In this regard we are no different from the ancient Romans who no doubt knew that their system of numerals was cumbersome but were happy to persist with it.

Unfortunately, because the decimal representation serves us well in everyday life we somehow assume that the inaccuracy in the number one-third is a property of the number rather than the method by which we choose to represent it. In fact it is easy to show that it is the method of representation which is at fault, not the number itself.

If we had been created with six fingers on each hand rather than five then we would presumably count in groups of 12. In maths jargon we would count to base 12. When counting to base 12 the following statement is true:

$\frac{1}{3}=0.4$

That is easy to understand if you remember that the column following the decimal point when counting in base 12 is the twelfths column, and four-twelfths equals one-third.

However, counting to base 12 is not immune to problems. The fraction one-fifth, for example, which is equal to 0.2 in decimal can only be exactly represented in base 12 by 0.24972497 . . . followed by endless repetition of the four digits 2497.

No matter what base you choose there will always be some fractions which cannot be represented exactly. There are even some numbers — such as pi, the ratio of the circumference of a circle to its diameter — which cannot be

Table 1. John Jennings' test program demonstrating the effect of rounding errors

```
10  LET X = 3
20  FOR I = 1 TO 10
30  LET X = X - 0.5
40  PRINT X
50  IF X = 2.5 THEN PRINT "Two point five"
60  IF X = -1 THEN PRINT "Minus one"
70  NEXT I
```

son elpline, Graham Close, Blewsbury, Oxfordshire

The aim is to create a pseudo random number and a seed number. The seed can then be fed through the same algorithm to produce the next random number. Sometimes the seed for the next calculation is the preceeding random number. Mathematicians have had fun in the past devising a number of hashing algorithms and then proving that the sequence of numbers created by them are more or less random.

The Spectrum random number generator uses the calculation:

Random number=
(75★(SEED+1)−1)/65536

You can prove that by choosing some whole number as a seed and then comparing the result of the calculation with:

```
10 RANDOMIZE SEED
20 PRINT RND
```

To finish off the exercise keep an eye on the SEED system variable at address 23670. You will see that, as its name suggests, it is this location which is used to store the seed for the next calculation.

suggest the possibility of building a picture off-screen and switching it in more or less instantaneously, rather than copying it laboriously to 16384.

Those readers who are well-informed about machine-code programming will know that, because the hardware needs to get at the screen memory to maintain the screen picture 50 times per second, programs run more slowly when placed in the lowest RAM bank. This problem affects only one of three banks of RAM in the ordinary Spectrum but four out of the eight banks in the 128.

The new sound chip is a great blessing because it allows the programmer to set up some effects and then go away and get on with executing some other code rather than, as with the Spectrum, forever having to go back and toggle the loudspeaker at the correct moment. The effect transmitted through the TV speaker is also rather better than the old telephone-in-a-cardboard-box generated by the Spectrum.

Of course the price to pay for better sound is the extra work involved in setting up the registers with channel, amplitude, tone and envelope data. The manufacturers have identified an entry point in the second ROM by which the machine code programmer can access the music system provided by the new Basic Play command. That is similar in principal to the way in which RST 16 can be used in the ordinary Spectrum ROM to use the facilities of the Print command from machine code.

exactly represented in any base.

Of course those inexactitudes do not normally matter because we are happy to accept a number which is

Table 2. The output from the program listed in Table 1

```
2.5

Two point five

2

1.5

1

0.5

2.3283064E-10

-0.5

-1

-1.5

-2
```

approximately correct as exact. The trick is to build in acceptance of tiny but irrelevant differences. In particular you should not, as John Jennings has done in lines 50 and 60 of his program, demand equality in any comparison.

The program illustrates how the Spectrum disguises the problem of rounding errors in its printing routine except for numbers which are very close to zero. Thus we do not know if there are rounding errors in the calculation of 2, 1.5, 1, 0.5, −0.5, −1, −1.5 and −2 because the print routine rounds off the numbers to the first half dozen or so significant figures, discarding any rounding error as it does so.

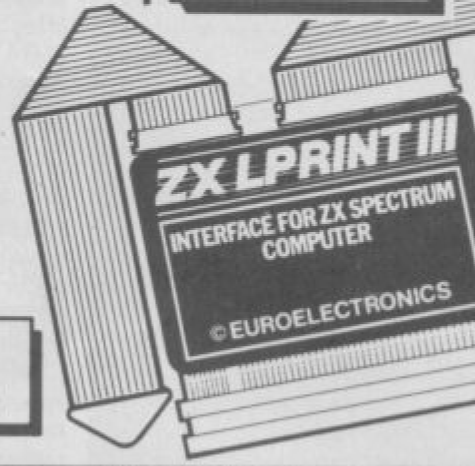
But the number zero has no leading significant figures by definition, so the Spectrum has no way of knowing where truth ends and rounding error begins.

Hence it prints what it has stored away, which is a number which is not quite zero but is smaller than one divided by a thousand million. The poor old computer, because it isn't human, doesn't realise that John Jennings is going to be very perplexed by this result.

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Animator1



TIRED of the way programmers flex their graphics muscles at you from the screen? Want to add life and complexity to those little black blobs you call aliens in your feeble attempts to write arcade games?

Animator1 can enhance your Basic and machine code programs using a screen designer coupled with an advanced sprite animator. All those functions are controlled using the keyboard. Devices such as mice and joysticks are not necessary — according to the publisher. Such devices are a hinderance to artists who cannot get enough detail into their designs when using them.

The whole screen is used for drawing and you can set up several sprite shapes at the same time using a cursor which mimics brush or airbrush and can lay down a variety of hatchings and textures. The cursor can also draw lines and shapes using one of the characters from the user-defined, or normal character, sets or even a smiling face.

There are four graphics creation modes — design, line, circle and print. The design mode alters the texture of the drawing cursor.

Five types of brush are included and they form part of the whole of a character square. You can also use hatch 14 as a brush, and trail a smiling face across the screen.

There are 14 predefined hatches — called textures in other packages of this type — but another 65521 can be user-defined. The character set, user-defined graphics and brushes can also be changed on-screen using a cursor. There is no need to call up each character or brush to make a change. Just move the cursor to the chosen character and start inking or erasing.

The line and circle modes create shapes on the screen whch can be filled with texture or colour. Unlike other packages on the market you do not have to define the origin of a line before you start to play with the other end. **Animator1** allows you to play with both ends of a line and to stretch it in any direction — what versatility!

Circles can be drawn more accurately than with packages such as **Art Studio** and **The Artist**. A cross-hair cursor, which can be made bigger or smaller, is used to depict the origin and diameter of the circle. Pressing the draw key will print a circle touching the four spikes of the cross-hair. That method is easier and more exact than using a pixel-width cursor to select the two circle points.

Print mode is nothing less than stunning. You type in a message which is displayed on the screen. It can then be stretched, compressed and pointed in any direction using the cursor movement keys. The message can even be rotated on its own axis.

SOFT 5 WARE

Once you have designed your screen you can select parts of it to be sprites. A rectangular window defaulted at the centre of the screen shows the part of the main display in which the draw cursor is located. That frame can be saved as a sprite by specifying the new sprite number.

The use of the whole screen as a sprite sketch pad is useful because you can create a series of figures side by side which show the stages of animation. You can then save each of those as a sprite and animate it.

All you have to do to animate a series of sprites is to specify the range in which they fall —

Icon Graphix

IT MAY have icons but this package is not quick on the draw. The speed at which it performs its operations precludes its use by any designer who wants to produce images swiftly and with the minimum of fuss.

My test for icon packages is to see how far I can get into the program without resorting to the manual. I was able to understand most of the icons — except the rubber — but none of them seemed to work.

A quick look at the instructions, which are very brief indeed, did not reveal any wrong doing on my part so I tried again. Eventually I found the need to hold down the fire key or joystick button for three to five seconds.

Control may be slow but Audiogenic brings a whole new meaning to turtle graphics. It is the slowest drawing program I have seen. A utility written in Basic could do better. **Icon Graphix** takes 10 seconds to draw a line across the width of the screen. To fill the screen with a texture — it can't do colours — takes, on average, 35 seconds. What are they using, Basic ROM routines?

If **Icon Graphix** is not so fast it does have a wide range of graphics and text effects. The three drawing implements available are felt tip pen, paint spray and paint brush.

You can select the width of the felt pen using the Shapes icon. Sixteen nib or spray shapes can be selected, ranging from short, straight lines, through blobs to large squares of texture or colour.

The texture of your pen is changed by selecting a new texture from the blocks around the screen. Those include solid black, various hatch patterns, and plain white. You can also design your own textures using the draw option.

Lines, circles and boxes can be drawn in felt pen mode. Those shapes are elastic-banded, so that you can see the shape expand as you manipulate the cursor. To draw a line, you would press the fire key and move the cursor to the position at which you want the line to end. You can twist the line in any direction and when the fire key is released the line is completed.

Drawing predefined lines, circles and boxes is even slower than drawing simple pen trails made up of individual texture dots. The speed difference is very noticeable — we're now down to a snail's pace.

One of the only outstanding — and fast — features of the package is the magnification. It can treble the size of a particular area of your design — where the cursor has been located — and can make detailed design work easier. Unfortunately you cannot select the level of magnification, a feature which would have been useful to professional designers and artists, but in general the magnification is enough for most line drawings, plans and circuit diagrams.

Icon Graphix lacks colour — most of the time. Drawing is done in black and white and colour is added afterwards by selecting the colour menu — which appears at the top of the screen — setting the colour and then moving over your design with the felt pen. That works well enough for simple shapes but you cannot add colour on a pixel scale to complex drawings, or paint the whole screen in one colour with one instruction.

Audiogenic has relied upon the popularity of icons in an attempt to make much more of what is a sub-standard product. The package is too slow, in both control and

SOFT 3 WARE



such as 1 to 5 — and press Enter. An example series of sprites, showing an animated man, is included and illustrates the sophistication of the package over other products.

We're not finished yet, though. **Animator1** can also mirror the screen image, scroll it and expand, contract and rotate it at an instantaneous speed which puts **Art Studio** to shame. You can manipulate the whole screen, part of it, or the attributes, using the window system and the cursor movement keys.

The sprites and screen displays can be stored on tape, disc or microdrive and be run in Basic or machine code programs. Instructions for their use are given in the concise but easy to read booklet.

As a design package **Animator 1** beats **Art Studio** and **The Artist** in all but fancy display packaging and price. It is most certainly the best sprite creator around because it is so easy to use. The package invites use rather than putting up a barrier between it and beginners.

I wish this new company well and hope it finds a retail outlet soon.

John Gilbert

Publisher Softcat Software, PO Box 79, Macclesfield, Cheshire SK10 3NJ
Price £14.95 **Memory** 48K
★★★★★

operation, and does not have the flexibility which a professional designer would need.

Even if you're not a professional the best design equipment available is **Art Studio**, or **The Artist**, or even **Animator1**. *John Gilbert*

Publisher Audiogenic
Memory 48K **Price** £9.95
Joystick Kempston
★★★



Laser Basic

LASER BASIC is all about sprites.

What is a sprite? Well, it's an object which can move across the screen — a monster or a bus or a space invader — independently of other objects or the background. The dream command in Basic would be something like LET SPRITE(1)=LEFT+1 which would move sprite number one a square to the left.

Alas, you can't do that sort of thing on the Spectrum without writing a lot of routines which make the whole operation extremely slow, especially if you've got lots of sprites on the screen at a time. **Laser Basic** is designed to provide a comprehensive set of extra commands which you can use to manipulate sprites.

What you get is a set of programs, incuding a demonstration game of 3D Noughts and Crosses, which, between them, provide the various necessary facilities. **Laser Basic** itself occupies about 8K of memory at the top end of the RAM, but the amount of extra space used to store the sprite data obviously depends on how many sprites you define for use. Two sets of sprites — 109 in all, ranging from small spacecraft to large steam trains — are thoughtfully provided.

There are 138 commands added to Basic, which fall into various categories. The toolkit provides a renumber facility and a monitor command, which runs a program line by line so you can follow it through. A set of graphics variables contains information about the position and nature of different sprites.

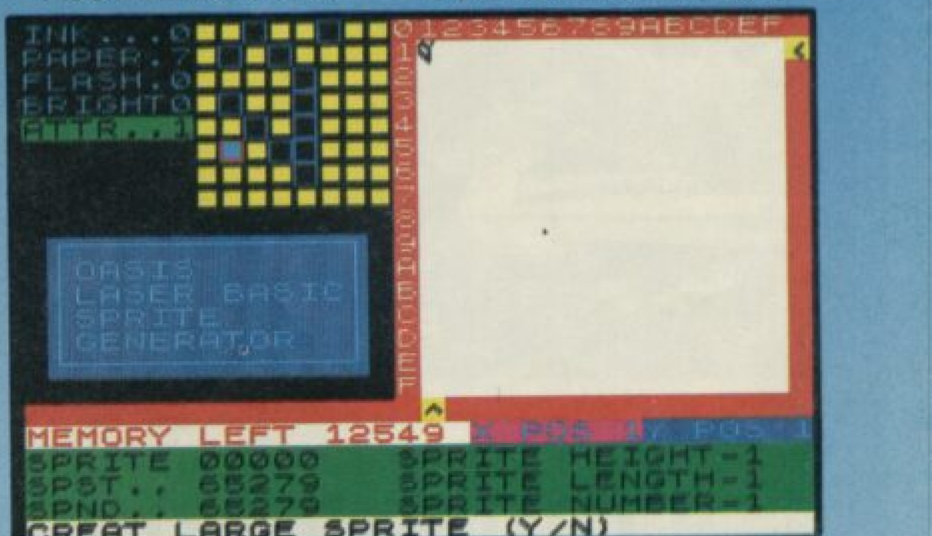
A set of commands puts the contents of a graphics variable into an ordinary Basic variable where it can then be changed under normal functions.

Further sets of commands scroll the screen, or attributes, a number of pixels left or right, up or down. You can choose whether to have your sprites wrap around the edges of the screen or simply disappear. Another group of commands is concerned with dropping sprites into the screen or taking data from the screen and turning it into a sprite. A final set gives inverse, mirror and rotate functions on pre-defined sprites and their attributes.

If you are beginning to get confused by all this technical stuff, be warned — **Laser Basic** is immensely powerful but does not welcome the novice. That is not because the program is badly implemented — far from it — but because the very nature of the programming is complicated. If you don't understand how ordinary Basic Spectrum graphics work, you will be completely at sea with **Laser Basic**.

For those who do understand the ins and outs of graphics programming, however, it's an excellent utility. The separate sprite designer program allows you to create all the sprites you need by using methods similar to those of UDG generators — except in this case you are not limited to a single character square but can work on a grid of up to 15x15 squares — larger if you tailor the size to your needs first. The resulting data is then saved as a sprites file to be used with **Laser Basic** itself.

The one drawback to the whole thing is that you can't run your program without **Laser Basic** present in the memory — obviously the Spectrum can't interpret those new commands by itself. Ocean IQ has therefore produced the **Laser Compiler**, which allows you to compile your programs into machine code which will then run on its own. It's simple enough to use, runs very fast, and occupies less memory than the **Laser Basic** program, thus ensuring that anything you write will be short enough to compile.



The booklet suggests that the Compiler can improve ordinary Basic by a speed factor of two, whereas it's much better with **Laser Basic** programs. We found virtually no difference at all on test programs in Basic involving arithmetic, looping, and graphics. Nor was there a marked improvement on the speed of **Laser Basic**, though scrolling functions were definitely smoother.

This is not surprising — the compiler is very small, only makes one pass and clearly does not optimise the code in the way programs like **Blast!** attempt to do. You should not buy the compiler on its own if you expect major savings in the speed of your programs — it's simply not worth it. As a tool for persuading your **Laser Basic** efforts to run on their own, it is essential.

Also essential are microdrives, if you want to get anywhere without winding up knee deep in cassette tape.

While the 75-page manual is daunting, it's full of example programs and routines to illustrate all the commands. The sprite selections provided are well-drawn and cover most of the usual objects and monsters.

The programmers were responsible for **White Lightning**, the classic games writing utility, and have kept up the standard with **Laser Basic**. While it is likely to have a rather limited market, it is certainly a highly satisfactory package for the budding games programmer. *Chris Bourne*

Laser Basic
Publisher Ocean IQ
Price £14.95
Memory 48K
★★★★★

Laser Compiler
Publisher Ocean IQ
Price £9.95
Memory 48K
★★★

Laser Compiler



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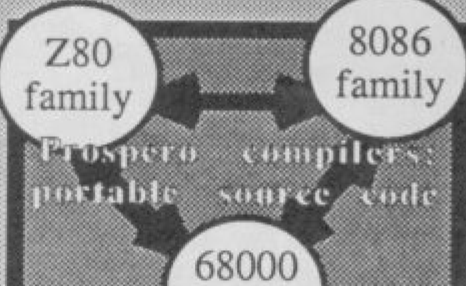
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QLINK

Who's supporting the QL today?

John Gilbert has some harsh words for Sinclair's QL backup services

THE LAUNCH of the 128 may have got you jittery about the future of the QL, but Sinclair Research is committed to the 68000 chip and will continue to produce machines which use it.

The QL User Club is still in existence as is the advice hotline for enquiries about the Psion business packages which has been renamed Psion Support. The demarcation lines for help are blurred but it is generally understood that if Sinclair can wriggle out of answering technical queries it will. After all there's always Psion or *Sinclair User*.

Sinclair is responsible for supplying updates of the Psion packages. Psion doesn't have copies so don't write to them. The company does, however, run a telephone hotline for people who have problems using **Quill, Archive, Abacus** and **Easel**. The telephone number is supplied when you join QLUB, applications for which are in the QL package when you buy it.

When you contact Psion with a query, your identity number is processed through the company's VAX — to make sure you are a member. Your query is then fed into the computer which cross references all similar problems which have occurred in the past and prints out the solutions if there are any. If the answer is not known a solution is found by the Psion engineers and the computer database updated.

Answers can also be sought by mail. Just fill in one of the Psion Questionnaire forms and send it off. Those are processed by the computer which prints out several courses of action.

So, what has Sinclair got to equal Psion's valiant effort? A phone call to Sinclair headquarters will prove frustrating in the extreme. More than likely there will be no-one available to give you help, technical or otherwise. One other tip. Don't bother phoning the company's shipping department at Camberley. It's continuously engaged for some reason.

One area of QLUB which Sinclair has managed to get right is QLUB News. It is a slim black and white publication and resembles an advertising sheet giving details of new products. The news section of the magazine, which is supposed to come straight from the heart of Sinclair, is invariably three months behind the times. The editor could certainly tighten his belt.

Of the two main QL Clubs — IQLUG was covered in last month's issue of *Sinclair User* — QLUB is the poor

QL Paint

IF YOU BOUGHT GraphiQL last year, you'll wish now that you had waited for Sinclair's QL Paint — an advanced version of the Talent package.

For those of you who do not own a graphics package, this is the one to buy. It has everything you are possibly going to need.

Control of the drawing devices is through a series of icons and drop down menu options which are selected using the cursor keys. There are eight of those menus which are accessed through the F5 function key.

Holding the space key down while moving via the cursor keys leaves a trail of dots in the selected colour. You can also switch to airbrush and squirt a fine texture of paint onto the screen, drawing in the same way as you would with the pencil.

On the next level of design you can pre-define shapes such as circles, lines and boxes. Those can be filled with colour or texture taken from a library of patterns stored within the program.

Textures are created in a window at the bottom of the screen and can include any

Pro Fortran-77

I OWE my interest in computers to a schoolboy infatuation with the Fortran programming language, and a stack of batch-processed punched cards.

At school in the early seventies Fortran was the main language for computer illiterates who fancied themselves as hackers and, although it was replaced by interactive Basic operating on remote terminals, it still remains popular in colleges and scientific establishments.

Fortran-77, from Prospero, is a complete implementation of the ANSI X3.9 standard. It has a run-time library and standard Sinclair linker which is used to connect separately compiled Fortran routines.

The two-pass compiler converts source into relocatable binary code. Being relocatable, the machine code can be turned into a job and run anywhere on the user RAM map. Unfortunately, a source editor has not been included so you will need to buy one. I would suggest the one from Metacomco, which is a standard ASCII editor, but you would have to buy one of their languages or utilities to obtain it.

Once you have found a way of entering source the rest is plain sailing. The first input the two-pass compiler requires is the name of your source file — it can take only one file at a time.

The compiled source code is assembled on cartridge using MDV2_ and a report goes to the screen console to inform you of any errors and, if there are none, how much code and data has been assembled. That is useful if you want to run tasks concurrently.

Just because you can compile only one program at a time does not mean that the program cannot be made up of code from different files. Several source files can be linked into one program using the INCLUDE directive which is so popular with C compiler manufacturers. When the compiler encounters INCLUDE the code which it points to is loaded as a routine within the main program and compiled.

There are nine compile-time options which you can select. Those include making a list of source file and error messages and dumping it either to the screen console or MDV_ file, checking the range of variables and compacting code if memory is at a premium.

The compiler is easy to operate and can be made even easier by putting it onto disc and using QL Toolkit, from Sinclair Research, to put the compiler into Batch Mode. Once you've done that a single command can be used in compilation instead of having to invoke the compiler's two passes manually.

Error messages can occur at any time during compilation and consist of a digit from one to four indicating the level of severity, the source line number at which the error occurred and the code of that error.

The error messages are not in English and you will have to refer to an appendix at the back of the manual to translate them. There are 107 error messages covering compile-time, run-time and IO errors.

The comprehensive manual covers most aspects of Fortran but it is no replacement for a book on the language — which any good Websters outlet will stock. Fortran is not as difficult as Pascal to learn, especially if you have done some Basic programming. It is, after all, a sub-set of Basic with a structure similar to that of Pascal and an extended file-handling capability.

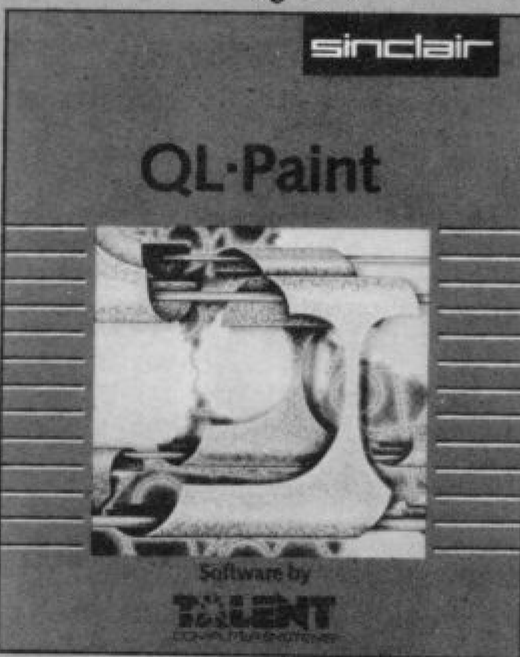
Pro Fortran-77 will appeal to colleges and other educational establishments, and to home users who want a Basic-type language without the restrictions on random access file handling.

It can also be used to construct mathematical models, handle calculus, equations and geometric functions. Those can be supplemented and made more digestible on screen by the sophisticated graphics commands. At the other end of the scale you can, of course, produce your own graphics adventures — which usually require manipulation of locations with graphics — or adventure games which do not need user-defined graphics. At almost £100 you are unlikely to want to just try it out! However, if you've seen what Fortran can do and have long applications programs to write, Pro Fortran-77 is an excellent alternative to all those Basic and Pascal compilers on the market.

Publisher Prospero Software Ltd, 190 Castelnau, London SW13 9DH.
Price £99.95
★★★★★

SINCLAIR USER CLASSIC

QLINK



shape or colour. For instance, you could design a star pattern, coloured blue on the outside wall and yellow at the centre, and fill any area within your main design with that texture.

The patterns which make up textures can be as complex as you wish. You could, for instance, make up a series of picture elements such as the sun, grass or even a house and call them from the library to create the main picture. It is a powerful part of the package which is not available on most other design programs for the QL.

QL Paint will also copy and mirror parts of your design along one or two axes. That saves a lot of time reproducing shapes on the screen and takes less than a minute to complete.

To copy a design from one area of the screen to another, mark a rectangular window around it and take the cursor to the screen area where you want to reproduce the shape. You can then plant the design onto the screen or Save it to microdrive.

Mirroring a shape in the X or Y axes can be done in a similar manner. Just put a box window around the shape to be mirrored and press the keys corresponding to the vertical or horizontal plant.

The results of your graphic dabblings can be output to a microdrive or printer — it is not possible to use a disc drive. A printer driver written in SuperBasic has been included so you can set up the program for your make of printer. The instructions are simple and concise so, you should have no difficulty in making the most out of this superb package.

The advantages of **QL Paint** over **GraphiQL** are physically slight but the savings for you in time and energy are great. You only need to read the instruction book once to use this product and, if you've had experience with other design products, you may not have to refer to it at all.

If you are a beginner you will be surprised at the graphics you can create within a matter of minutes. You don't have to be an artist to achieve good results, as playing around with shapes on the screen often produces a prize winning picture which can be put into your programs.

Publisher Sinclair Research
Price £24.95
★★★★★

relation, although it shouldn't be. QLUB membership is free, whereas membership of IQLUG is by subscription to its magazine *Quanta*. If Sinclair wants to run a Club it should do so properly — I'm sure we'd all pay extra for such a facility — your reactions please.

Software news

Transform has decided to take the QL under its belt with three new programs ranging in price from £20 to £60.

If you run a small business you will have noticed the lack of mailing list facilities on both **Quill** and **Archive**. **Mailing List** allows you to store and retrieve names and addresses using **Archive**. Data files can be exported to **Quill**.

It is compatible with Transform's **Stock Control** program which costs £14.95. It will keep a record of stock items indexed under retail price, trade price, minimum order level and items on order.

The **Payroll** package — the only one of its kind, I believe — calculates weekly, monthly, and four-weekly payrolls. It handles all tax calculations, coin analysis and payment rounding.

If you are looking for a good text adventure, other than the **Pawn** and can take the shabby purple cassette inlay then **QL Nemesis** will appeal.

It's a space adventure with an original plot — well, for the QL anyway. Taking your twin-engined craft into the depths of space you must capture the most wanted man in the universe — Sir Clive.

The game can be obtained from TEC Publications for £13.95. A review will appear in QLink, next month.

Mailing List £14.95, **Stock Control** £14.95, **Pay Roll** £63.25. Transform Ltd, 24 West Oak, Beckenham, Kent BR3 2EZ. Tel 01-658 6350.

QL Nemesis £13.95, TEC Publications, 24 Victoria Road, Bromsgrove, Worcestershire B61 0DW. Tel 0527 74567.

The Wanderer

SINCLAIR USER CLASSIC

CULT GAMES are unheard of on the QL, but I've got a feeling that state of affairs is likely to change when **The Wanderer** hits the screen.

I've seen 3D games before — in which you must wear 3D glasses — but only **The Wanderer** has worked for me. The initial demo displays with their strange conglomeration of objects floating through space tell of the miracles to come. Bicycles spin past, pentagons twist and turn, and cards float lazily towards infinity.

Press Enter and the space map is displayed. Most of the map squares are blank and represent sectors. The other squares represent worlds on which you can play poker for energy and shield power, and gateways into other galaxies.

The plot revolves around some nasty looking moggies — who are on the warpath, destroying everything they find in their path through space. The 3D perspective makes it difficult to destroy them. If you clip only the side of one of their space crafts you might get hit by floating debris, followed by a venomous attack from their laser guns.

If you were hoping for a version of **Elite** on the QL, **The Wanderer** falls far short. Although there are many types of feline battle cruiser, including one which looks like a flexi-lamp complete with domed shade and stand, the planets on the star map do not have their own economies — the idea is not to trade.

You must gamble at the poker tables — like Han Solo in *Star Wars* — and blow everything out of space.

Despite the lack of sophistication in plot, **The Wanderer** is the only game worthy of the arcade tag on the QL. The 3D graphics are spectacular and at times you will feel as if you are about to fall into the screen.

The transition between star systems initiated from the star map ridicules those industry pundits who say that if you want fast graphics on the QL you are flogging a dead horse. When you enter space warp your craft rushes through space. The stars



swirl in a vortex and you will feel very, very sick.

Pyramide, a French company, has done wonders with its first product for the British market. Its superb packaging and documentation complement a program which shows its author to be very talented. **The Wanderer** puts many British software products to shame. I can only hope that such excellence will make British software houses get off their backsides and produce something worthwhile.

Publisher Pyramide, Rio Promotions, 28 Waverley Grove, London N3 3PX
Price £19.95
★★★★★

► 90

QLINK

John Lambert compares Clive's new printer with the competition and finds it lacking

Sinclair QL printer

AT LAST, I thought, Sinclair has finally got it right. Its new QL printer is a good product at a good price. I decided to compare it with two other new printers in the same price bracket . . .

Sinclair printer

The Sinclair printer — SP1000QL — looks like a professional printer. Black to match the QL, with a built-in tractor feed for continuous paper, and even a cable to plug straight into the QL.

If you prefer using single sheets of paper there is a plastic guide to feed the paper in, and a switch on the side which automatically feeds it through and lines it up.

The SP1000QL is basically a badged Seikosha 1000 with an RS232 port as standard and a new ROM which contains the QL character set.

Not having to worry about control codes and DIP switches makes using the printer very simple. There are buttons on the front for On Line, Line Feed and Form Feed and you can use them to set NLQ — Near Letter Quality.

If you want to be adventurous there are a host of control codes to give different character sizes — enlarged, condensed, elite, italics, subscript, superscript and you can even set it to give proportional printing. All these different codes can become a little overpowering so I was pleased to see a new one — ESC ! n — which allows you to set a combination of modes in one instruction. Each mode corresponds to one bit in the n byte.

For graphics the printer uses the standard Epson control codes.

Overall a nice, friendly printer. At a shade under £250, compared to an Epson, it is good value. Ideal for people who don't really understand printers.



Sinclair QL Printer

```
    In the begining God created the heaven and the earth.
    And the  earth was without form,  and void,and darkness was
upon the face of the deep. And the Spirit of God moved upon the
face of the waters.
    And God said, Let there be light: and there was light.
    And God saw  the light, that  it was good:  and God divided
the light from the darkness.
    And God  called the light  Day, and the  darkness he called
Night. And the evening and the morning were the first day.
    And  God said, Let there be a firmament in the midst of the
waters, and let it divide the waters from the waters.
    And  God made the  firmament, and divided  the waters which
were  under the firmament from the  waters which were above the
firmament: and it was so.
    And  God  called the firmament Heaven.  And the evening and
the morning were the second day.
    And  God said, Let the waters  under the heaven be gathered
together unto one  place, and let  the dry land  appear: and it
was so.
```

Sinclair ordinary typestyle

```
    In the begining God created the heaven and the earth.
    And the  earth was without form,  and void,and darkness was
upon the face of the deep. And the Spirit of God moved upon the
face of the waters.
    And God said, Let there be light: and there was light.
    And God saw  the light, that  it was good:  and God divided
the light from the darkness.
    And God  called the light  Day, and the  darkness he called
Night. And the evening and the morning were the first day.
    And  God said, Let there be a firmament in the midst of the
waters, and let it divide the waters from the waters.
    And  God made the  firmament, and divided  the waters which
were  under the firmament from the  waters which were above the
firmament: and it was so.
    And  God  called the firmament Heaven.  And the evening and
the morning were the second day.
    And  God said, Let the waters  under the heaven be gathered
together unto one  place, and let  the dry land  appear: and it
was so.
```

Sinclair near letter quality



Centronics GLP printer

```
    In the begining God created the heaven and the earth.
    And the  earth was without form,  and void,and darkness was
upon the face of the deep. And the Spirit of God moved upon the
face of the waters.
    And God said, Let there be light: and there was light.
    And God saw  the light, that  it was good:  and God divided
the light from the darkness.
    And God  called the light  Day, and the  darkness he called
Night. And the evening and the morning were the first day.
    And  God said, Let there be a firmament in the midst of the
waters, and let it divide the waters from the waters.
    And  God made the  firmament, and divided  the waters which
were  under the firmament from the  waters which were above the
firmament: and it was so.
    And  God  called the firmament Heaven.  And the evening and
the morning were the second day.
    And  God said, Let the waters  under the heaven be gathered
together unto one  place, and let  the dry land  appear: and it
was so.
```

GLP ordinary typestyle

```
    In the begining God created the heaven and the earth.
    And the  earth was without form,  and void,and darkness was
upon the face of the deep. And the Spirit of God moved upon the
face of the waters.
    And God said, Let there be light: and there was light.
    And God saw  the light, that  it was good:  and God divided
the light from the darkness.
    And God  called the light  Day, and the  darkness he called
Night. And the evening and the morning were the first day.
    And  God said, Let there be a firmament in the midst of the
waters, and let it divide the waters from the waters.
    And  God made the  firmament, and divided  the waters which
were  under the firmament from the  waters which were above the
firmament: and it was so.
    And  God  called the firmament Heaven.  And the evening and
the morning were the second day.
    And  God said, Let the waters  under the heaven be gathered
together unto one  place, and let  the dry land  appear: and it
was so.
```

GLP near letter quality

Centronics GLP

The Centronics GLP has been around for a while and has proved popular at the lower end of the market. The reason for this was the price, around £150, because it had both parallel — Centronics, and serial — RS232 ports and because it could do NLQ. The only problem was that it was rather slow.

The old model has now been discontinued and a new one will be released in April at twice the speed and for only £50 more.

The new Centronics GLP has a number of features over the old one. All those found in the Sinclair printer plus a built-in printer buffer, the facility to download characters and 12 different national character sets.

Normally a computer can send characters to a printer faster than the printer can print them. This means that when printing a computer spends a lot of time waiting. A printer buffer is an area of RAM inside the printer which stores the characters to be printed.

Both the Sinclair printer and the GLP took about the same time to print the sample text, but with the GLP the computer was free 45 seconds sooner. If you were printing only a single page the computer would be free almost immediately.

Part of the RAM in the GLP can be used to download characters. You can design your own characters, send them to the printer, and they will be printed instead of the normal character set. One use for this would be to design a character set which matches that of the QL, you would then have your own Sinclair printer.

The GLP — which stands for Great Little Printer, and rightly so — has a lot to recommend it. I find it difficult to reconcile a GLP at £200 plus £15 for a tractor feed, but compared to the Sinclair printer it is very good value.

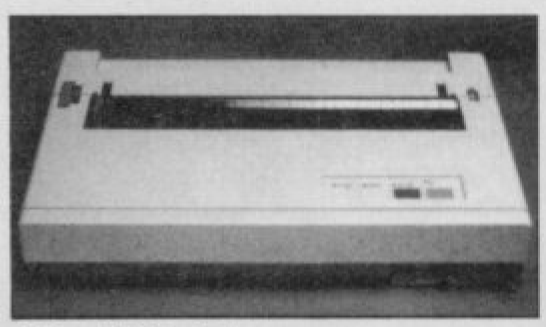
The problem is that it doesn't look like a £200 printer. It will do all that the Sinclair printer will do for less money, but many people tend to buy on looks and the Sinclair badge. If you are looking for a reasonably priced printer with all the facilities then buy a GLP. After all, Centronics invented the standard.

Citizen 120D

Having been agreeably surprised by the GLP I was not prepared for the new Citizen 120D. Although Citizen has been making printers for a long time, it has always been badged by other companies and so I didn't expect too much.

The printer does not look special — a standard printer shape which stops short at the back of the tractor feed. The clip-on tractor is supplied as standard as is a plastic guide for single sheets of paper.

The socket for the lead from the computer is quite novel in that the lead



Citizen 120D printer

```
    In the begining God created the hea-en and the earth.
    And the  earth was without form,  and void,and darkness was
upon the face of the deep. And the Spirit of God moved upon the
face of the waters.
    And God said, Let there be light: and there was light.
    And God saw  the light, that  it was good:  and God divided
the light from the darkness.
    And God  called the light  Day, and the  darkness he called
Night. And the evening and the morning were the first day.
    And  God said, Let there be a firmament in the midst of the
waters, and let it divide the waters from the waters.
    And  God made the  firmament, and divided  the waters which
were  under the firmament from the  waters which were above the
firmament: and it was so.
    And  God  called the firmament Heaven.  And the evening and
the morning were the second day.
    And  God said, Let the waters  under the heaven be gathered
together unto one  place, and let  the dry land  appear: and it
was so.
```

Citizen ordinary typestyle

```
    In the begining God created the heaven and the earth.
    And the  earth was without form,  and void,and darkness was
upon the face of the deep. And the Spirit of God moved upon the
face of the waters.
    And God said, Let there be light: and there was light.
    And God saw  the light, that  it was good:  and God divided
the light from the darkness.
    And God  called the light  Day, and the  darkness he called
Night. And the evening and the morning were the first day.
    And  God said, Let there be a firmament in the midst of the
waters, and let it divide the waters from the waters.
    And  God made the  firmament, and divided  the waters which
were  under the firmament from the  waters which were above the
firmament: and it was so.
    And  God  called the firmament Heaven.  And the evening and
the morning were the second day.
    And  God said, Let the waters  under the heaven be gathered
together unto one  place, and let  the dry land  appear: and it
was so.
```

Citizen near letter quality

▶ 92

90 ◄ plugs into a cartridge which then plugs into the printer. It is supplied with a Centronics cartridge as standard, with an RS232 cartridge available as an optional extra.

Having plugged everything together, I started the computer printing, stop-watch in hand. I turned round to look at the printer, turned back to the computer and found that it was already free. I had to print the sample again to get the timing. It's fast.

A quick flick through the manual revealed that the 120D has a 4K buffer, twice the size of the GLP. Even so, the overall time spent printing, for instance, when the buffer has emptied was three-quarters of that of the GLP. Only in NLQ did it slow down.

A further look through the manual revealed an amazing array of features.

Although I had fed in the paper at the back of the printer in the normal way you can also feed it up through the middle of the printer from underneath. This makes arranging the printer on the desk much easier. The buttons on front, nominally titled as those on the Sinclair printer, can be used to select one of eight print styles without having to worry about control codes.

If you want to twiddle with DIP switches, the ones on the cartridge allow you to set up the optional sheet feeder, select one of three Epson configurations or IBM, start up in NLQ mode and set the character style. Depending on which Epson mode you select you can also select one of eight national character sets.

The 120D can do everything the Sinclair printer and the GLP can do and more. Proportional printing, proportional spacing, and automatic justification to centre, left, right or both; underline and over score, perhaps a line over the top of words; different styles — any style can be printed in reverse, white on black and/or double height.

The list goes on. Graphics, tab channels, you can even take the printer off line with control codes. One very useful feature — for code freaks — is that the printer can do a hex dump. Not just the normal page after page of figures, but 32 bytes at a time with the corresponding ASCII characters being printed separately on the right, in a similar manner to the screen display of **Cartridge Doctor** and **QDoctor**.

The 120D is an excellent printer. The only other surprising thing about it is the price £235. If you wanted to run it from the QL you would have to spend another £30 on the RS232 cartridge plus a tenner for a cable, or use one of the many RS232 to Centronics converters.

Summing up

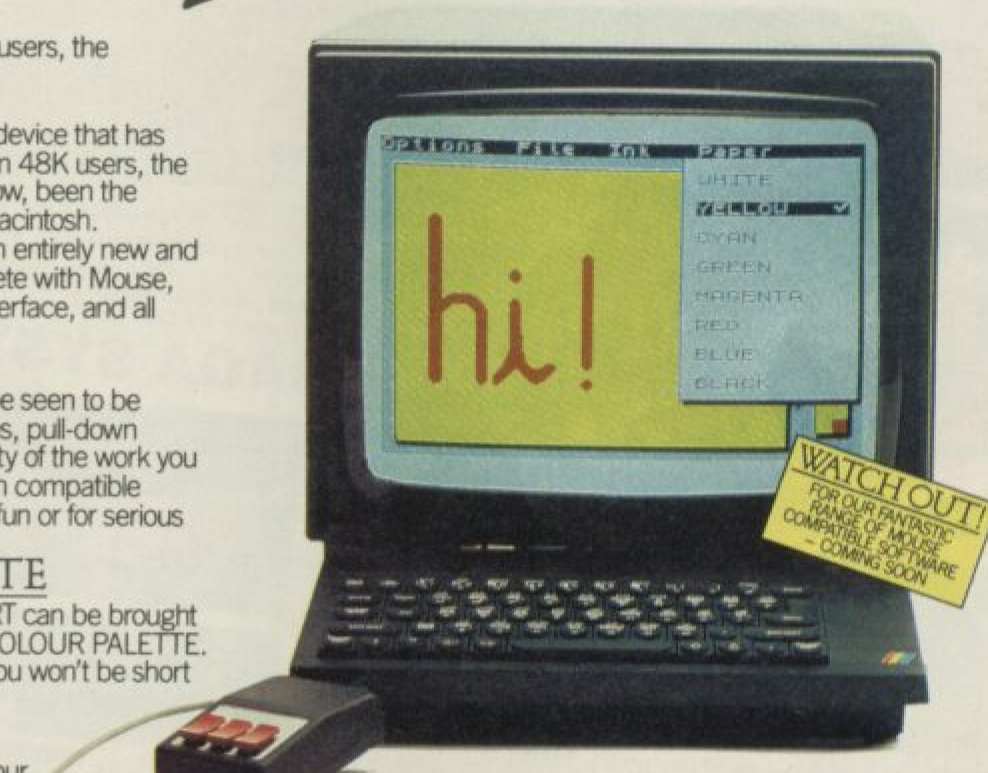
So much for the Sinclair printer. It is a good printer in many respects and deserves better — if it gets discounted then it's a reasonable buy. The GLP is good, and cheap, and if you don't go for looks and don't want the tractor feed it is also a good buy. For the money, slightly higher in total than the other two, the 120D is the best buy. I can't think of anything I would want to do with a printer that it can't do already, and it can do things I'd never dreamed were possible at the price. Anybody want to buy a second-hand Epson?

The sample text used for the timings was the first chapter of Genesis typed in using the power-up default settings. The QL was fitted with a 512K memory board from Sandy and a CST disc interface running a 5¼in Viglen drive. Timings were taken from pressing Enter in response to the printer's prompt until the prompt line was removed.

PRINTER	Sinclair	GLP	Citizen
Time for test			
Computer Free	1.38	0.47	0.20
In NLQ	5.52	2.41	0.25
Printer Free	1.38	1.33	1.00
In NLQ	5.52	4.24	3.55
Features			
Centronics	N	Y	Y
RS232	Y	Y	Option
Tractor	Y	Option	Y
Nominal Speed	100	100	120
In NLQ	20	25	24

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This fabulous AMX Mouse Package costs only £69.95, a price as remarkable as the package itself and it includes a fully illustrated operating manual.



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SIGNATURE ______

NAME ______
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______ POSTCODE ______

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"If I had not already seen the Saga 3 Elite I would have awarded the 2+ a Sinclair User Classic. As it is I'll simply say "Well done, Saga"". – Sinclair User.

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We believe The Last Word is the most advanced word processing package for the Spectrum. Just look at these outstanding facilities:- Standard commercial 80 characters on screen, over 60 commands, massive range of printer options, full on-screen help facility, full feature expression evaluator/calculator, over 24K text space in memory, compatible with tape and microdrive, wafer and: KDOS, BETA, Gordon and Opus disc systems.

PRICE: £13.95 inclusive of VAT
Send off now for full catalogue.

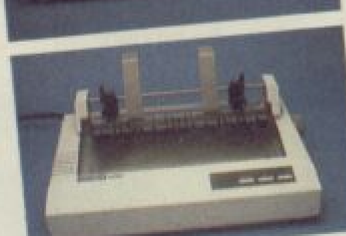
FREE WITH THE SAGA 2001

SAGA SYSTEMS' PRINTERS



THE NEW SAGA GLP (Great Little Printer)

Only **£199.95,** the Saga GLP is a dot matrix printer with a near letter quality mode, a complete Epson character set, tractor and friction feed, and a centronics and RS232 interface. It is very compact and can print up to 100 c.p.s. Only **£199.95** plus VAT.



THE CITIZEN 120D

A precision dot matrix printer with a 2 year warranty, the Citizen 120D operates at 120 c.p.s. in fast draft, or 25 c.p.s. in N.L.Q. It has Epson compatible graphics, tractor and friction feed as standard, an optional cut sheet feeder and is very compact. Further features include proportional spacing with many type styles and an exceptional 4K printer buffer. Only **£235** plus VAT.



THE NEW SAGA DX85

Big and robust the DX85 is a heavy duty dot matrix printer which is made in the U.K. It prints at 120 c.p.s. It has a bi-directional logic seeking print head and centronics interface (RS 232 available). It has a draft quality mode and costs only **£199.95** plus VAT.



THE LTR1 PRINTER

The LTR1 is a letter quality printer, 12 c.p.s. with centronics and RS232 interface and costs only **£121.70** plus VAT.

	Quantity	Price	P&P	
SAGA 1 EMPEROR		£39.95	£1.50	
SAGA 2+		£54.95	£1.50	
SAGA 3 Elite		£69.95	£1.85	
SAGA 2001 *		£119.95	Free	
SAGA LO PROFILE		£39.95	£1.50	
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MICRODRIVE EXT. CABLE		£9.95	Free	
SOUND BOOST		£9.95	Free	
DUST COVER (Please specify which keyboard)		£4.95	Free	
CENTRONICS INTERFACE		£34.95	Free	
THE LAST WORD		£13.95	Free	
VAT is included	TOTAL			

* Please state Spectrum model: 48K, +, 128K (please circle)

All these products are described in more detail in our Free Catalogue.

SEND YOUR ORDER TO: Dept. SU1 Order Desk Saga Systems Ltd., 2 Eve Road, Woking, Surrey GU21 4JT. Telephone: 04862-22977

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Address ____________

Amount enclosed £ ____________

My Access Card No. is ____________

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SURGERY

Sinclair Surgery

Spectrum on the blink? John Lambert has a cure

Robot finds right port

I HAVE A 48K Spectrum and have bought a book telling me how to make a robot. It says you need to buy a user port if you do not have one. Where can I obtain one?
Stephen Bolton, Lichfield, Staffordshire

●*Contact Cambridge MicroElectronics — 0223-314814 — who can supply one.*

VTX on call for Italy

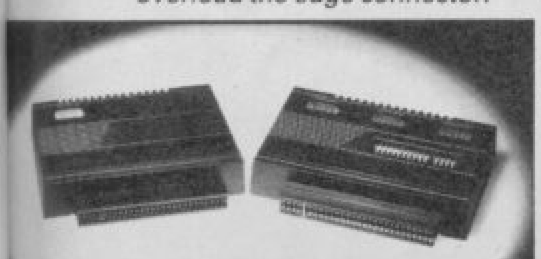
I READ with interest your article on Micronet 800 — *Sinclair User*, January. Is it possible to use a VTX5000 modem in Italy without spending much money on telephoning, and can I connect the VTX5000 to other modems?
Lorenz Petersen, Rome, Italy

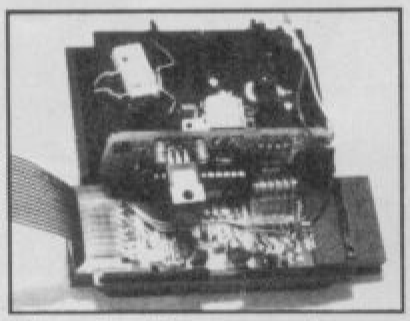
●*The VTX5000 contains its own modem. All you have to do is plug in a phone. I do not know if it will work with Italian phones although it does with many European ones. Can any readers help?*

Double up on joystick power

IS IT POSSIBLE to use a ComCon interface and Kempston interface at the same time? Would it damage my Spectrum to connect the two joystick interfaces, a Currah MicroSpeech and ZX printer at the same time?
P Smout, Dudley, West Midlands

●*You can connect Kempston and ComCon joystick interfaces at the same time, but be careful about adding too many other peripherals as it is possible to overload the edge connector.*





The microdrive exposed

Microdrives on the 128

I HAVE HEARD a lot about the new Spectrum 128 and would like to know if you can add microdrives without Interface 1. What other add-ons can be attached directly?
Michael Cooney, Roscommon, Eire

●*As you will see from this issue, the Spectrum 128 has been launched. If you want to add microdrives you will still need an Interface 1.*

There will be a number of Spectrum add-ons which will not work with the new 128 — the VTX5000 and Sinclair printer to name just two.

Lambert goes for brick chic

I HAVE BUILT UP a large collection of hardware, including an Alphacom printer, speech synthesiser and several joystick interfaces. I am now looking for a computer table but all the models I have seen are made for monitors. I have a Sony Trinitron which has a very large back.

Is there a table which is not too large and can go against the wall?
Christopher Martin, Kenley, Surrey

●*If you really want a computer desk the only answer is to shop around until you find one you like, but they all seem very expensive — £50 to £100. I also use a Sony Trinitron. My set-up consists of a cheap second-hand desk from a junk shop — £5 — with the TV sitting on an off-cut of chip board — 50p — supported by half a dozen bricks — 15p each. It might not look so elegant but it sure is cheap.*

Code cracked for Tasword

RECENTLY I BOUGHT the Tasman parallel printer interface. To my horror I discovered that it doesn't work with **Tasword II**. I need to define the interface codes in **Tasword II**, but I have lost the manual with the codes for different interfaces.

Please could you tell me the codes for the Tasman interface?
Christer Andersen, Herlev, Denmark

●***Tasword II** is supplied with the codes set for the Tasman interface. Simply load your original tape and it will work correctly. If you cannot find the original, the codes are:*
code 1: 0
code 2: 0
code 3: 0
code 4: 64836

Playing the tape by ear

RECENTLY the Symbol Shift key on my two-year-old Spectrum stopped working and has now been joined by a number of other keys. Is it necessary to send it to a repairer or can I replace the touch sensitive pad underneath the keyboard?

When I was swapping around the leads while loading a game, I put the lead going from the EAR socket to the tape recorder in the microphone socket on the Spectrum. To my amazement the Spectrum did not send the loading signal though the game still loaded. In fact, I find that programs which won't usually load, load first time with this system. Is it doing any damage to my Spectrum?
Roger Adlard, Hoddesdon, Hertfordshire

●*It sounds as if the keyboard membrane has broken. It is possible to replace this yourself but the membranes are difficult to get hold of cheaply, so try to find a repairer who just charges for the parts used.*

Putting the lead from the cassette player in the MIC socket rather than EAR will not harm the Spectrum. It works because both sockets are connected inside the Spectrum.

Elderly RAMs hard to find

COULD YOU please tell me where I can buy a 16K RAM pack for the Sinclair ZX81?
John Williams, Blackwood, Gwent

●*Sinclair has a few ZX81s in stock and they should have some RAM packs left. It may be cheaper to buy an old ZX81 with RAM pack second-hand and use the computer as a spare.*

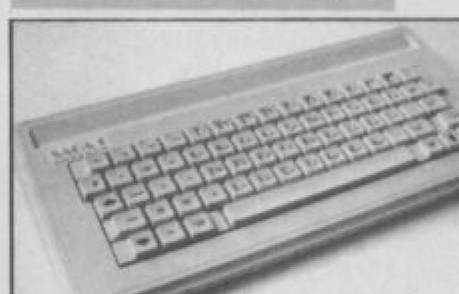
Kempston E is upgraded

I HAVE a Spectrum Plus with Interface 1, Kempston E interface with an Epson RX80 and Taxan green screen monitor.

While I can load **Masterfile** itself I cannot load 'example' or any other file unless I disconnect the Kempston E interface. How can I remedy this problem?
Gerald Colton, London NW6

●***Masterfile** will not function correctly when run from microdrive with an early Kempston E attached. Contact Kempston and they will replace it free of charge.*

Saga of the scrolling bugs



Mystery of Emperor's scroll

I HAVE a Saga Emperor keyboard which I use with Interface 1. I have discovered that if you try to change modes when you get a "scroll?" prompt then the last command entered returns to the input area and other strange things occur.

There are similar weird results if you press Caps Shift and certain keys. Is this the same with all keyboards and why does it happen?
Paul Sharpe, Shrewsbury, Shropshire

●*This happens on all Spectrums and is just one of the many design features — bugs — in the Spectrum.*

▶ 96

95 ◄

SURGERY

Elusive MIDI interfaces

I CANNOT FIND a supplier of a MIDI interface for my Spectrum. When I made the purchase the salesman assured me such a device was available but I begin to wonder if this was just a sales pitch. I want to use my Spectrum with a MIDI compatible printer and understand that MIDI is rapidly becoming the standard for computer control — but I cannot find any information about suitable software.
Steve Messenger,
Farnborough, Hampshire

● *There are in fact three or four different MIDI interfaces for the Spectrum. Contact Transform — 01-658 6350 — for details.*

Keyboard in crash horror

I HAVE PURCHASED a DK 'Tronics keyboard as my original keyboard refused to respond to the B, N, M, and Symbol Shift keys.

I naturally thought all my problems were over, but after pressing the B key, the game I was playing crashed. I then loaded another program and found that the keys crashed any of my 48K programs.

Being an avid adventurer I use those keys a lot and would be very grateful if you could help me.
J S Lauder,
Crook,
County Durham

● *One of the keyboard address lines is at fault. If you cannot see a break in the track around the end of the eight-way keyboard connector — which you can fix yourself — you will have to get it repaired professionally.*

Parlez-vous le Tasword?

I HAVE the French version of **Tasword II** which is fabulous. My problem is the Spectrum keyboard and I am interested in buying the new Saga keyboard.

I should like to know if the keyboard is fully compatible with Interface 1. I am also thinking of buying a disc drive, the Opus Discovery 1.

Is it possible to connect the keyboard with the drive and Brother M-1009 printer? Will **Tasword II** run with either keyboard and drive or keyboard and Interface 1?
Pascal Bosset,
Geneva,
Switzerland

● *The Saga 3 is compatible with both Interface 1 and Discovery 1. In turn, both are compatible with* ***Tasword II****.*

Understanding IBM language

I RECENTLY bought a GLP Centronics printer and interface for use with my Spectrum Plus. I am pleased with it but a problem has arisen which I cannot solve.

The instruction manual is in IBM PC language. Most of this is similar to Spectrum Basic except for ESC $. I cannot find a similar escape key.
J Botwood,
Wednesbury, West Midlands

● *So that a printer can change modes — for example from normal text to enlarged — you have to send a sequence of control codes. Those are usually the ESC character followed by one or two numbers. ESC has a value of 27 so, depending on the printer, the sequence to turn enlarged printing on would be:*

```
LPRINT CHR$(27); CHR$(87);
CHR$(1)
or
LPRINT CHR$(27); "W";
CHR$(1)
```

Provided the value of the control code is between 32 and 127 — the 87 in this example — it can be interchanged with the equivalent character.

Catching the post on a QL

I AM LOOKING for a mail-merge facility to use with **Quill 2.0** and wonder if you could make a recommendation. I have not been aware that any such program has been reviewed.
Irene Harvey,
High Wycombe,
Buckinghamshire

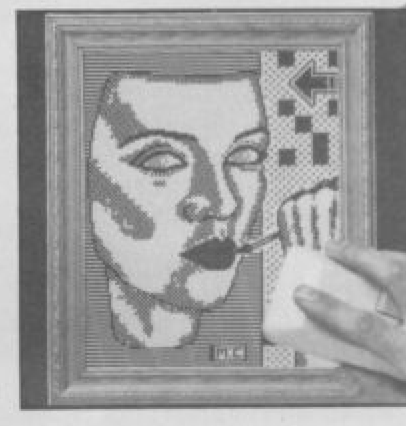
● *The only program I know of which gives a mail-merge for the QL is* ***Mailing List*** *by Transform. Contact them on 01-658 6350.*



The artist's mice

KEMPSTON has finally released its mouse for the Spectrum — and it was well worth waiting for. As a bonus it runs on the new Spectrum 128, so it looks as though it will be around for quite a while yet.

The most obvious attraction is that it is bundled with the excellent **Art Studio** — a *Sinclair User* Classic — and it makes the program even better than it was before. With the standard **Art Studio** you have to patch the program to use the mouse, while the extended version is supplied ready patched.



Mice are great for moving a pointer round the screen or selecting items from a menu, hence the current expression WIMPS — Windows, Icons, Mice, Pointers. As **Art Studio** utilises all those functions it is much easier to use.

The Kempston mouse has two buttons, which although normally independent, appear to have the same function within the program. It has a soft rubber ball, which is less likely to slip, and optical decoders.

You cannot avoid comparisons with the AMX mouse. While the Kempston mouse is physically superior and the interface simple and straightforward to use, the main problem is software. Kempston has always been very good at hardware, but not so good at software.

The AMX interface has both a mouse port and a printer port, while the Kempston runs only the mouse. For software writers

Shedding light

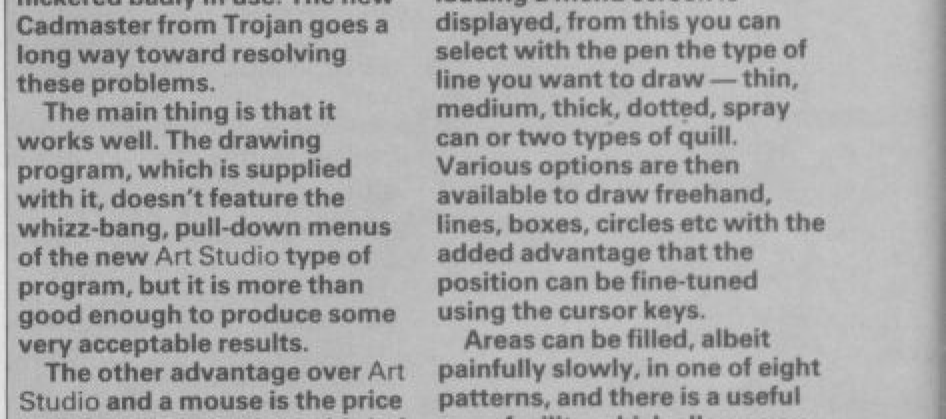
SPECTRUM LIGHT PENS have never really caught on. Until now most of the offerings have been wildly inaccurate or have flickered badly in use. The new Cadmaster from Trojan goes a long way toward resolving these problems.

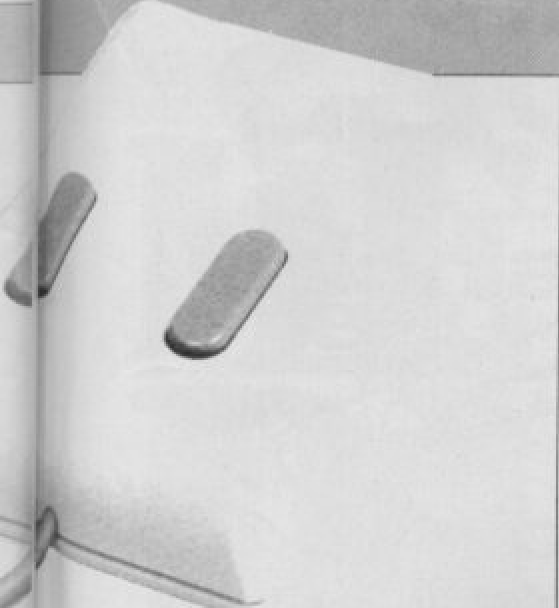
The main thing is that it works well. The drawing program, which is supplied with it, doesn't feature the whizz-bang, pull-down menus of the new Art Studio **type of program, but it is more than good enough to produce some very acceptable results.**

The other advantage over Art Studio **and a mouse is the price — £19.95. At less than a third of the price of the** Art Studio **package more people will be able to afford it.**

Using the pen is very simple, just point and shoot. On loading a menu screen is displayed, from this you can select with the pen the type of line you want to draw — thin, medium, thick, dotted, spray can or two types of quill. Various options are then available to draw freehand, lines, boxes, circles etc with the added advantage that the position can be fine-tuned using the cursor keys.

Areas can be filled, albeit painfully slowly, in one of eight patterns, and there is a useful copy facility which allows you





the Kempston interface is potentially easier to use, but that should make no difference to competent writers.

The software supplied with the AMX mouse consists of a drawing program — not up to the standard of **Art Studio** — plus an extended Basic so that you can use the mouse, pull down menus etc, in your own programs. Kempston gives you **Art Studio** only, plus instructions on how to read the mouse port.

On balance I prefer the Kempston mouse, if only because it is better made. It will be up to the commercial software writers to make their choice.

If you write your own Basic programs go for the AMX, if you write in Z80 stick with Kempston. After all, the Kempston joystick interface has become a standard.

Both mouse packages cost £69.95.

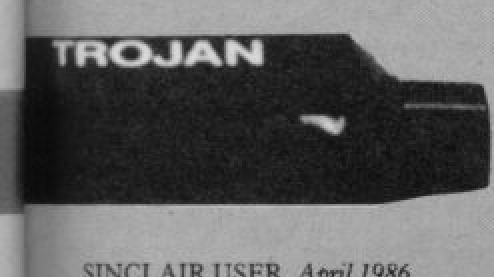
Kempston MicroElectronics Ltd, 1-3 Singer Way, Kempston, Bedford. Tel: 0234-856633.

to select part of the screen and to redraw it in one of four sizes. The finished masterpiece can be saved to tape or microdrive.

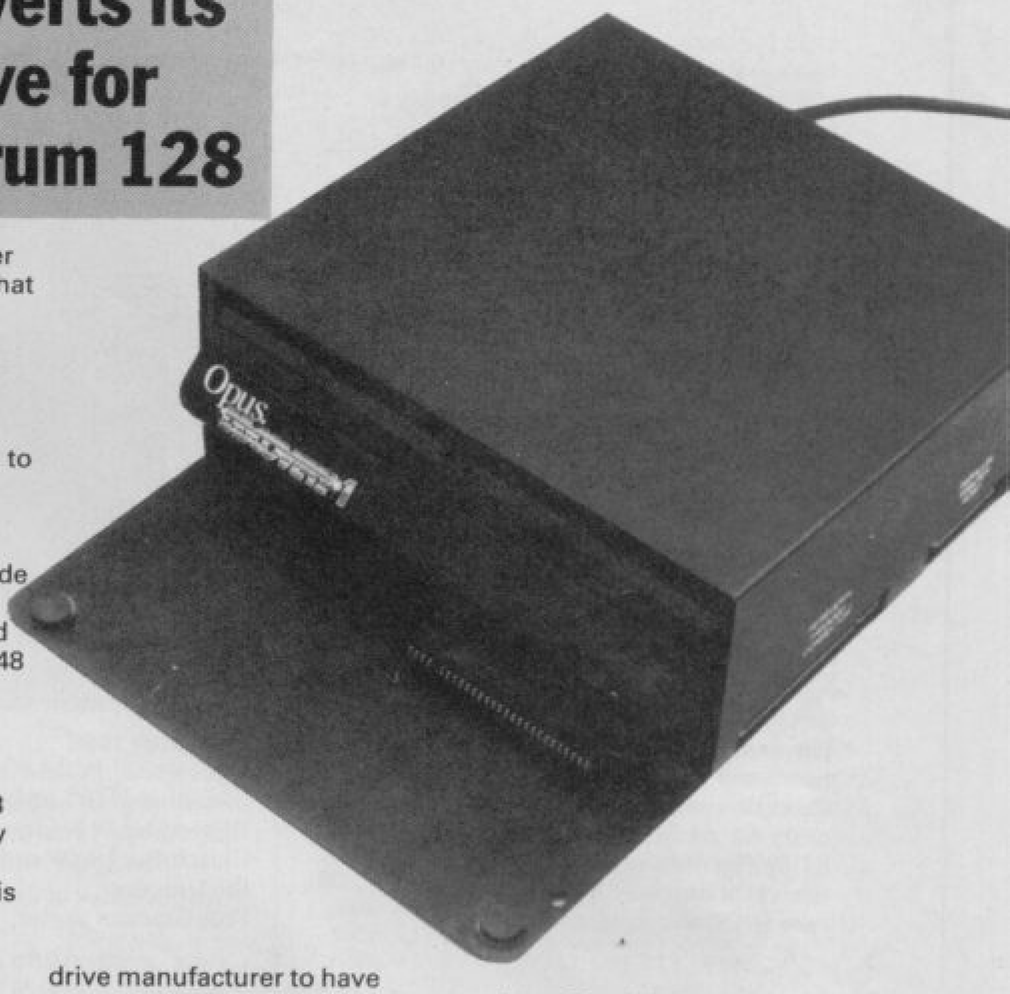
The Cadmaster has a few disadvantages. Most operations require you to point the pen at the screen and then press a key, which may be an awkward manoeuvre for some people. The pen also needs a PP3 battery to power it and though it will last over a year it is one more thing to remember.

Overall, a commendable effort and one which should make Cadmaster the top Spectrum light pen.

Trojan Products, 166 Derlwyn, Dunvant, Swansea SA2 7PF. Tel: 0792-205491.



Opus converts its disc drive for the Spectrum 128



WITH ALL the excitement over the 128 and what it can do, what it can't do tends to be overlooked. One of the drawbacks is that it can't run many of the better hardware add-ons.

While adapting Discovery 1 to run on the 128, Opus has managed to enhance the performance of the machine. You can now go from 128 mode to 48 mode and back again, open files to the RAM disc and access the same RAM disc in 48 mode.

In the standard Discovery 1 you can use the top 32K of a standard Spectrum as a RAM disc — drive five. With the 128 you can use the extra memory as a Discovery RAM disc — drive six. The advantage of this over the Sinclair RAM disc is that you can now use all the microdrive type commands with it, plus the added Discovery features.

When using the Sinclair RAM disc you can only Load and Save, with Discovery attached you can do that and set up a proper filing system with random access files. It should also be faster than the Sinclair version.

In the 48 mode the Sinclair RAM disc is inaccessible; with Discovery that memory can be accessed so you can save a program, go to 48 mode, and then load it back. More importantly you can do the same from 48 mode to 128 mode.

Unlike the Spanish 128, the program in memory in the English version is retained when going from 128 to 48. Unfortunately, if you want to use the Discovery facility of returning to 128 mode the program in memory gets deleted in the process. Hence the need to be able to access the RAM disc in both modes.

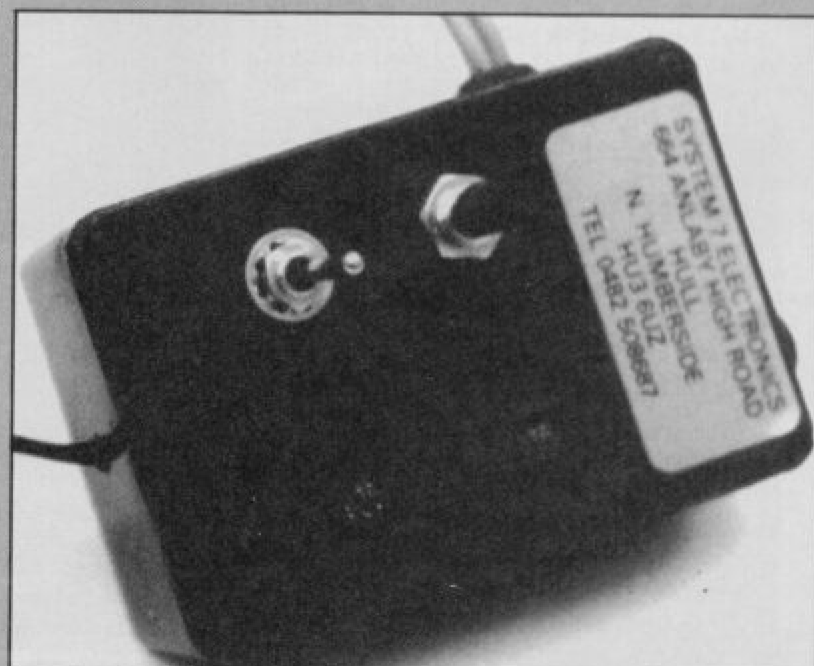
The new, enhanced Discovery 1 still works on the Spectrum Plus and rubber Spectrum. The only difference in the new version is the Discovery ROM which can be updated for a moderate sum.

The Discovery still has a 3.5in drive, parallel printer port, joystick port, monitor port, through connector and built-in power supply which also powers the computer.

Opus has gone a long way to correcting some of the more glaring omissions in the 128. It is, as far as I know, the only disc drive manufacturer to have successfully converted its product to run on the 128, and so for that reason alone should do well.

Opus Supplies Ltd, 55 Ormside Way, Holmethorpe Industrial Estate, Redhill, Surrey RH1 2LW.

Reduce wear on sockets



OLD FAVOURITES never die, they simply get reviewed in *Sinclair User*.

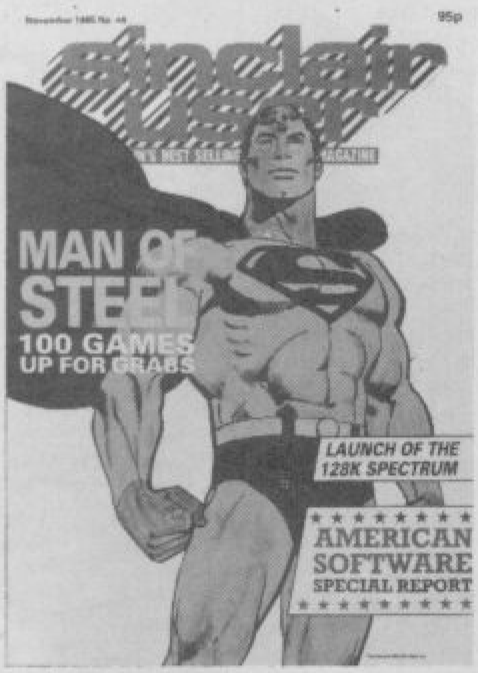
System 7 has released a Load/Save switch and reset switch in one. This little unit combines two very useful features at the modest sum of £7.70 inc.

For those who have never heard of a Load/Save switch, it merely allows you to Load and Save without having to pull one of the plugs out of the Spectrum. Similarly, the reset switch can reset the computer without having to pull the power lead out. As the Spectrum sockets tend to wear quite quickly this is a definite advantage.

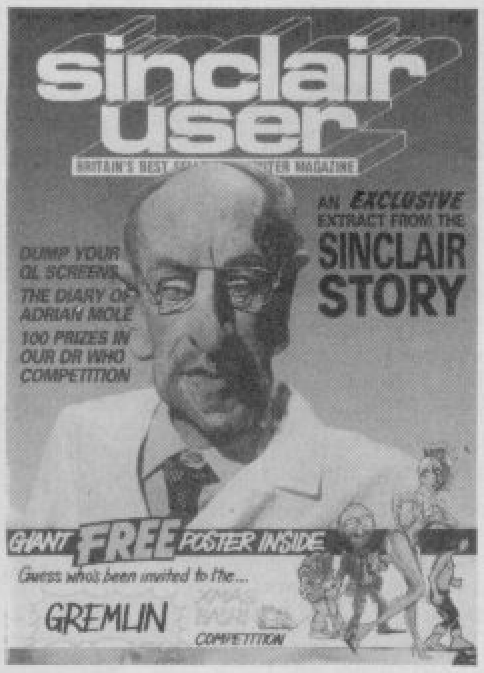
A worthwhile unit at the price.

System 7 Electronics, 664 Anlaby High Road, Hull, North Humberside HU3 6UZ. Tel: 0482-508687.

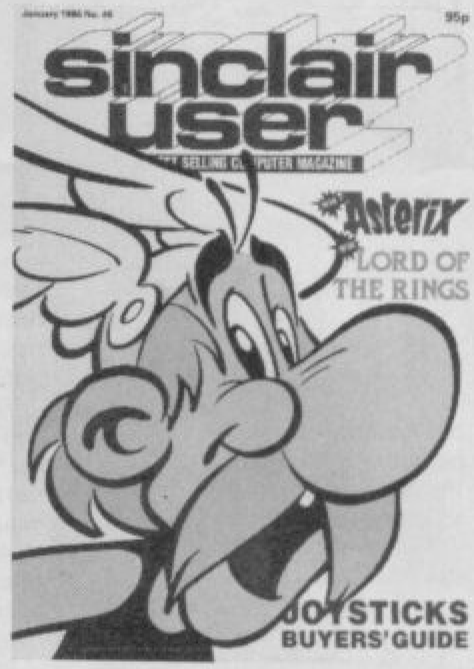
BACK ISSUES



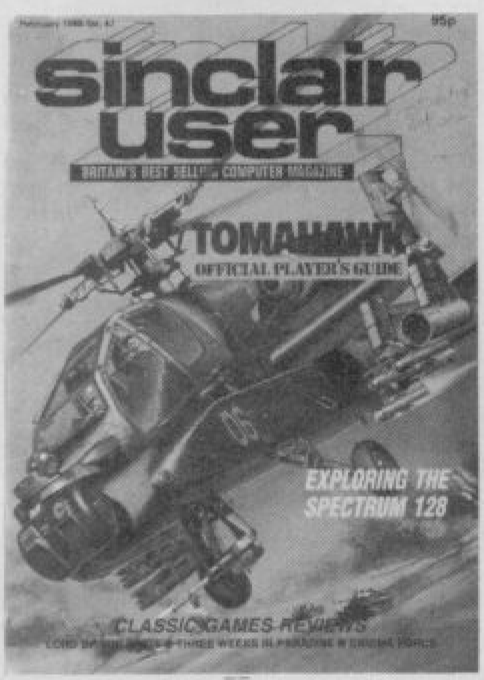
November 1985
Spectrum 128 launched in Spain.
Chris Bourne gives the low-down on nasty American software.
Exploring the world of **MUD.**
Arrival of the classic **Elite.**
Free 50 Classic games booklet.



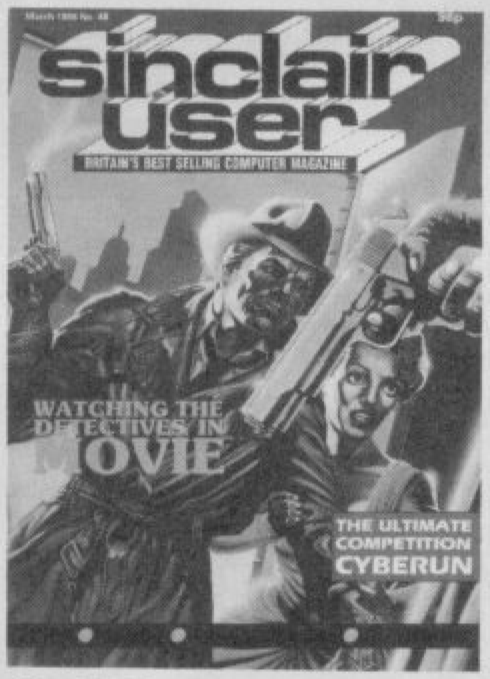
December 1985
Clive the whizz-kid schoolboy — first instalment of **The Sinclair Story.**
Delta 4 and St Bride's interviewed.
Classic **Back to Skool** and **Shadow of the Unicorn.**
Free Gremlin poster.



January 1986
The Sinclair Story concluded.
Meet the brains behind Micronet.
New Year fun with Gremlin.
Reviews of **Tau Ceti, Spellbound, Gladiator, International Karate.**



February 1986
The new look *Sinclair User* — more games reviews in greater depth.
Do games drive you mad?
inside the 128.
Free Gordo Adventure booklet.



March 1986
The Classic **Movie** reviewed.
The twilight world of hacking.
The 128 arrives — at last.
A guided tour around the worlds of **Tau Ceti.**

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(£1 each including P&P).

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I enclose a cheque/PO to the sum of ____________________

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Address ____________________

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Please post to: Sinclair User Back Issues Department, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.

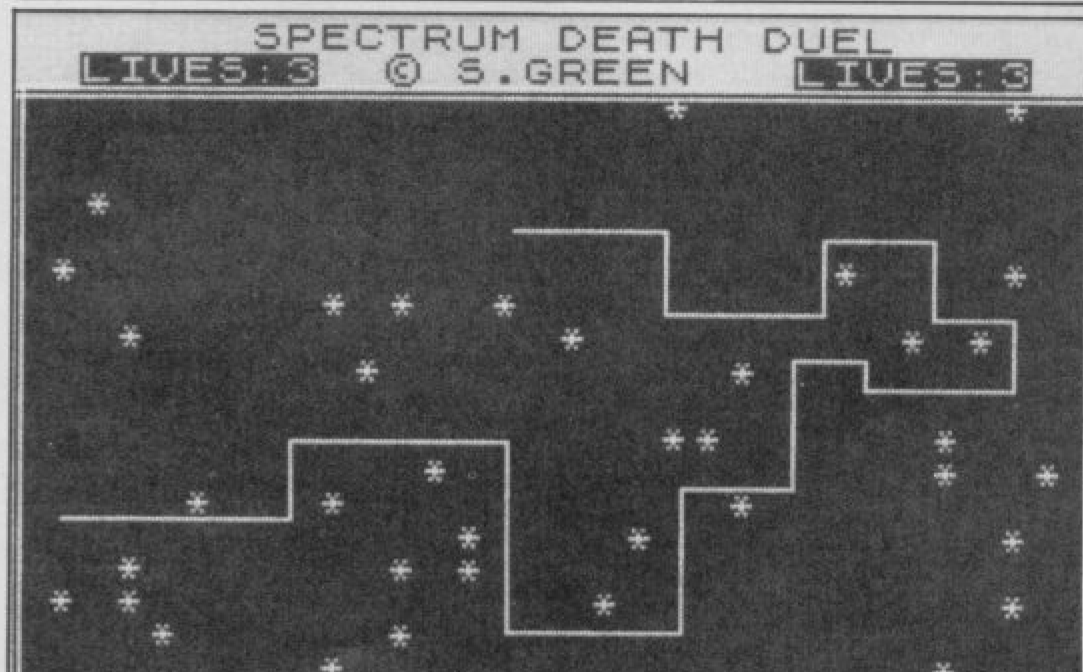
DEATH DUEL

RIDE YOUR BIKE in the Death Duel — if you dare.

Stewart Green of Halesowen in the West Midlands has written a fast moving game for any Spectrum, which contains machine-code to pep up the pace. One or two players can take part, and the idea is to keep moving without hitting the obstacles or running over you or your opponents trail.

There are three listings. Type in listing one and save it to tape. Then clear your Spectrum and type in listing two, the code loader. RUN this program and type in the numbers from listing three as you are requested for them. Do not type in the address at the beginning of each line or the checksum at the end — those are just there to help you know where you are and check each line on screen as you type it in.

The program uses our special instructions for graphics characters, so please read the instructions at the beginning of Program Printout before typing in the listings.




```
   5 LET PL=0: INK 0: PAPER 7: B
RIGHT 1: BORDER 7: FLASH 0: CLS
  15 LET TIME=32627: LET HS=900:
 POKE 23658,8: DIM p$(8): DIM h$
(5,8)
 100 INK 0: PAPER 7: CLS : PRINT
 '"(6*sp)SPECTRUM  DEATH  DUEL":
 PRINT "(5*sp)~~~~~~~~~~~~~~~~~~~~~
~~~~~~"
 110 PRINT  PAPER 6; INK 3;AT 5,
8; FLASH 1;"(14*sp)";AT 6,8;" Wh
ich level? ";AT 7,8;"(14*sp)"
 111 RESTORE 120: FOR c=0 TO 9:
READ a$: PRINT AT 10+c,8;c;"(sp)
-(sp)";a$: NEXT c
 121 DATA "LIGHTNING","SUPER FAS
T","FAST","SPEEDY"
 122 DATA "AVERAGE","SLUGGISH","
SLOW","VERY SLOW","GRANNY SPEED"
 123 DATA "ORION SNAIL PACE"
 130 LET A$=INKEY$: BEEP .03,RND
*2: IF A$>"9" OR A$<"0" THEN  GO
 TO 130
 140 LET A=VAL A$: PRINT AT 10+A
,8; OVER 1; FLASH 1; PAPER 6;" "
: POKE 32623,A*A+1
 150 BEEP .2,-10: BEEP .2,-20: P
RINT AT 21,0;" DO YOU WANT INSTR
UCTIONS? (Y/N)"
 160 IF INKEY$="N" THEN  GO TO 8
00
 170 IF INKEY$<>"Y" THEN  BEEP .
03,RND*2: GO TO 160
 200 GO SUB 3000
 800 LET LIVES1=3: LET LIVES2=3
 900 POKE 32621,LIVES1: POKE 326
22,LIVES2
1000 CLS : PRINT AT 8,9;"COUNT D
OWN": FOR A=99 TO 0 STEP -1: PRI
NT  INK 3; INVERSE 1;AT 10,13;"(
sp)";AT 10,13+(A<10);A: BEEP .00
5,A/2+10: NEXT A
1005 POKE TIME,0: POKE TIME+1,0:
 BEEP .2,0: INK 0: PAPER 4: CLS
: BORDER 4:: PRINT AT 0,7;"SPECT
RUM DEATH DUEL": PRINT  INVERSE
1;AT 1,2;"LIVES:";PEEK 32621;AT
1,23; INVERSE 1;"LIVES:";PEEK 32
622
1007 IF PL THEN  FOR F=0 TO 10*V
AL A$+1: PRINT AT RND*19+2,RND*3
0;"*": NEXT F
1010 LET p=USR 32000
1015 INK 0: PAPER 7: IF PEEK 326
22<LIVES2 THEN  LET LIVES2=PEEK
32622: PRINT  FLASH 1;AT 1,29;LI
VES2
1020 IF PEEK 32621<LIVES1 THEN
LET LIVES1=PEEK 32621: PRINT  FL
ASH 1;AT 1,8;LIVES1
1030 IF NOT PL THEN  GO TO 1060
1040 LET T=PEEK TIME+256*PEEK (T
IME+1): PRINT  PAPER 6;AT 10,11;
" TIME ";AT 11,12;T: IF T>HS THE
N  LET HS=T: PRINT  FLASH 1;AT 1
3,7;" NEW HIGH-SCORE ": GO TO 20
00
1050 POKE 32621,1: PRINT #1;"  P
ress  'ENTER'for another try ":
PAUSE 0: IF INKEY$=CHR$ 13 THEN
```

▶ 100

Graphic Instructions

THERE ARE three types of abbreviation to watch out for in our program listings this month. As always (sp) means 'type one space', so (32*sp) would mean 'type 32 spaces'. Don't enter the brackets in such cases, or commas where they separate two graphics abbreviations.

If you get an underlined capital letter, enter that letter in graphics mode. It will not appear on the screen with an underline; that's just our way of distinguishing it from an ordinary capital letter.

Finally, (ig8) refers to the inverse of the graphics symbol on key 8. You obtain it by going into graphics mode and then pressing 8 while holding down Caps Shift. This should result in a solid black square.

Tripods Goofo

Blunder time is upon us once more. **The Tripods** caused all sorts of trouble in February. Somehow we managed to leave one line of code out of the listing.

On page 116, at line 5030, you'll see that line has four lines of code before going over to the next column. At the end of those four lines, after . . . 26FF, insert the following line: E3A52C3A330123A53C39238E73E21325 and then continue with 4C33 . . . as printed. All should then be well. Sorry!

99 ◄

DEATH DUEL

```
 GO TO 1005
1055 GO TO 100
1060 IF NOT LIVES1 OR NOT LIVES2
 THEN  GO TO 2000
1070 FOR Q=0 TO 180: NEXT Q: GO
TO 1005
2000 BORDER 7: FOR a=20 TO 50: B
EEP .01,a: BEEP .01,a+19: NEXT a
: CLS : PRINT AT 18,3;" PLEASE T
YPE IN YOUR NAME ";AT 19,7;" MAX
. 8 LETTERS ": INPUT  LINE P$
2005 CLS : INK 4: PRINT  FLASH 1
;AT 2,8;"(ig8,sp,ig8,sp,ig8,sp,i
g8,sp,ig8,sp,ig8,sp,ig8,sp,ig8)"
2010 PRINT  FLASH 1;AT 3,8;" GRI
D::WINNERS "
2015 PRINT  FLASH 1;AT 4,8;"(ig8
,sp,ig8,sp,ig8,sp,ig8,sp,ig8,sp,
ig8,sp,ig8,sp,ig8)"
2020 INK 0: FOR F=4 TO 1 STEP -1
: LET H$(F+1)=H$(F): NEXT F: LET
 H$(1)=P$
2030 LET C=0: FOR F=1 TO 5: PRIN
T AT 6+2*F,8;"GAME ";F;"  ";H$(F
): NEXT F
2240 PRINT AT 21,5;" ANOTHER GAM
E? (Y/N)": LET C=0: LET C1=2
2250 IF INKEY$="Y" THEN  GO TO 1
00
2260 IF INKEY$="N" THEN  STOP
2270 BEEP .1,C: LET C=C+C1: IF C
>20 THEN  LET C1=-2
2280 IF C<10 THEN  LET C1=2
2290 GO TO 2250
3000 BORDER 5: PAPER 5: INK 0: C
LS
3010 PRINT ''" You and your part
ner are about to fight to the de
ath in the    infamous -Games Ar
ena."
3020 PRINT '" The only way to su
rvive is to  avoid any contact,
either with  the walls or the  s
olid Krypton discharge from your
 light cycles"
3030 DIM S$(352): PAPER 6: PRINT
 AT 11,0;S$:
3050 PRINT  PAPER 5;AT 12,12;" K
EYS ": PRINT 'TAB 3;"PLAYER ONE
    PLAYER TWO"
3060 PRINT TAB 3;"Q  A  X  C
 P  L  M  S/S"
3070 PRINT ''TAB 6;"UP DOWN LEFT
 RIGHT"
3080 PRINT #1;"  HOW MANY PLAYER
S  1/2 ": PAUSE 0: INPUT ""
3090 IF INKEY$="1" THEN  POKE 32
186,24: POKE 32187,46: LET PL=1:
 RETURN
3100 IF INKEY$="2" THEN  POKE 32
186,38: POKE 32187,00: LET PL=0:
 RETURN
3110 GO TO 3080
9000 LOAD ""CODE 32000,620: RUN
9999  SAVE "DEATH DUEL" LINE 900
0: SAVE "LOADING"CODE 32000,620
```

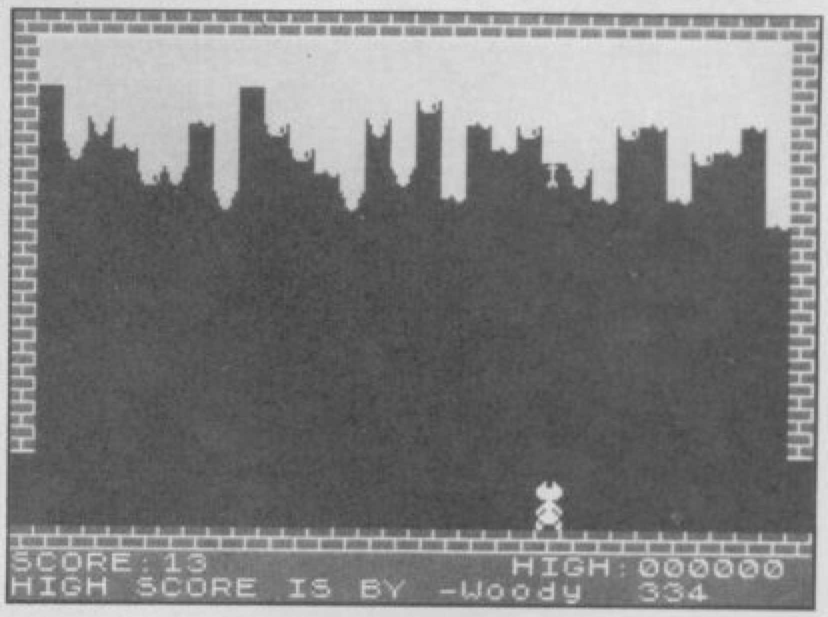
Listing 2

```
  10 FOR a=32000 TO 32620 STEP 5
  20 PRINT a;": ";: LET tot=0
  30 FOR b=0 TO 4
  40 INPUT "Next Byte? ";c: IF c
>255 OR c<0 THEN  BEEP .5,-10: G
O TO 40
  50 POKE (a+b),c: PRINT TAB 7+4
*b;c;
  60 LET tot=tot+c: NEXT b
  70 PRINT TAB 4*b+6;"= ";tot: B
EEP .1,0: NEXT a
```

Listing 3

```
32000:  33  64  88  229 209= 623
32005: 19  54  7   1   192= 273
32010: 2   237 176 33  64 = 512
32015: 64  6   175 205 97 = 547
32020: 126 62  160 119 16 = 483
32025: 248 229 209 21  21 = 728
32030: 62  255 6   32  119= 474
32035: 18  44  28  16  250= 356
32040: 33  255 87  6   175= 556
32045: 205 69  126 62  5  = 467
32050: 119 16  248 229 209= 821
32055: 20  20  62  255 6  = 363
32060: 32  119 18  45  29 = 243
32065: 16  250 50  255 85 = 656
32070: 17  43  64  33  60 = 217
32075: 127 6   10  197 229= 569
32080: 213 70  33  0   60 = 376
32085: 17  8   0   25  16 = 66
32090: 253 209 6   8   213= 689
32095: 126 18  35  20  16 = 215
32100: 250 209 225 35  28 = 747
32105: 193 16  226 33  225= 693
32110: 72  34  102 127 33 = 368
32115: 254 72  34  106 127= 593
32120: 62  16  50  104 127= 359
32125: 50  108 127 62  1  = 348
32130: 50  101 127 62  4  = 344
32135: 50  105 127 38  0  = 320
32140: 205 239 125 124 254= 947
32145: 0   40  3   50  101= 194
32150: 127 58  104 127 95 = 511
32155: 205 38  126 123 50 = 542
32160: 104 127 42  102 127= 502
32165: 58  104 127 166 40 = 495
32170: 10  58  109 127 61 = 365
32175: 50  109 127 195 140= 621
32180: 126 58  104 127 182= 597
32185: 119 38  0   205 5  = 367
32190: 127 124 254 0   40 = 545
32195: 3   50  105 127 58 = 343
32200: 108 127 95  205 70 = 605
32205: 127 123 50  108 127= 535
32210: 42  106 127 58  108= 441
32215: 127 166 40  10  58 = 401
32220: 110 127 61  50  110= 458
32225: 127 195 140 126 58 = 646
32230: 108 127 182 119 205= 741
32235: 236 126 24  155 6  = 547
32240: 254 72  237 120 203= 886
32245: 87  32  10  237 120= 486
32250: 203 95  40  12  203= 553
32255: 212 24  8   237 120= 601
32260: 203 95  32  2   203= 535
32265: 196 6   251 237 120= 810
32270: 203 71  32  10  6  = 322
32275: 253 237 120 203 71 = 884
32280: 200 203 220 201 6  = 830
32285: 253 237 120 203 71 = 884
32290: 192 203 204 201 58 = 858
32295: 101 127 42  102 127= 499
32300: 87  203 66  196 134= 686
32305: 126 203 82  196 123= 730
32310: 126 203 74  196 97 = 696
32315: 126 203 90  196 69 = 684
32320: 126 34  102 127 201= 590
32325: 124 230 7   254 0  = 615
32330: 40  2   37  201 124= 404
32335: 230 248 198 7   103= 786
32340: 125 214 32  111 208= 690
32345: 124 254 64  200 214= 856
32350: 8   103 201 124 230= 666
32355: 7   254 7   40  2  = 310
32360: 36  201 124 230 248= 839
32365: 103 125 198 32  111= 569
32370: 208 124 254 80  200= 866
32375: 198 8   103 201 123= 633
32380: 7   95  208 125 230= 665
32385: 31  61  216 45  201= 554
32390: 123 15  95  208 44 = 485
32395: 201 14  3   6   255= 479
32400: 197 17  2   0   97 = 313
32405: 104 205 181 3   193= 686
32410: 16  244 6   0   16 = 282
32415: 254 17  200 0   33 = 504
32420: 232 3   205 181 3  = 624
32425: 6   8   197 120 7  = 338
32430: 7   7   14  0   6  = 34
32435: 3   33  0   88  229= 353
32440: 209 19  119 237 176= 760
32445: 33  15  1   17  3  = 69
32450: 0   229 205 181 3  = 618
32455: 225 17  100 0   167= 509
32460: 237 90  125 254 255= 961
32465: 32  237 193 16  213= 691
32470: 6   3   33  0   88 = 130
32475: 229 209 19  54  71 = 582
32480: 237 176 33  160 15 = 621
32485: 17  25  0   205 181= 428
32490: 3   201 33  208 7  = 452
32495: 17  1   0   205 181= 404
32500: 3   58  111 127 16 = 315
32505: 254 61  32  251 42 = 640
32510: 115 127 35  34  115= 426
32515: 127 201 6   127 14 = 475
32520: 254 237 120 203 87 = 901
32525: 32  10  237 120 203= 602
32530: 79  40  12  203 212= 546
32535: 24  8   237 120 203= 592
32540: 79  32  2   203 196= 512
32545: 6   223 237 120 203= 789
32550: 71  32  9   6   191= 309
32555: 237 120 203 79  200= 839
32560: 203 220 6   191 237= 857
32565: 120 203 79  192 203= 797
32570: 204 201 127 32  83 = 647
32575: 46  71  82  69  69 = 337
32580: 78  32  58  105 127= 400
32585: 42  106 127 87  203= 565
32590: 66  196 134 126 203= 725
32595: 74  196 97  126 203= 696
32600: 82  196 123 126 203= 730
32605: 90  196 69  126 34 = 515
32610: 106 127 201 12  139= 585
32615: 76  4   4   238 72 = 394
32620: 0   0   0   0   0  = 0
```

HALLS OF SLIME



***LITTLE HOVERBOTS* should stay away from the slime. Unfortunately you're stuck with a whole cryptful of the stuff, and must hold the corrosive muck back as long as you can.**

***Crypts of Slime* by J Wood of Wednesbury in the West Midlands runs on any Spectrum, and is a good example of what you can do with a short simple program — it's fast, entertaining and well-designed.**

It also uses our special abbreviations for graphics characters, so read the instructions on the first page of Program Printout before you type in the listing.

Lines 1 to 5 Variable **hi** will hold the hi-score, and **h$** the name of the current champion. Then at line 5 the program is sent to a subroutine to set up the user-defined graphics.

```
1 LET hi=0: BRIGHT 1
2 DIM h$(6): LET h$="Woody"
5 GO SUB 1000
```

Lines 6 to 7 Variable **s** will hold the current score. The program is then sent to a routine which prints up the instructions.

```
6 LET s=0
7 BORDER 0: CLS : GO SUB 500:
BORDER 2
```

Lines 8 to 22 Variable **co1** is the time limit for each level — it starts at 400. Variable **co** is the time taken so far, and **sm** records whether you've used the hyperbomb or not. The array **d** is set to hold 31 numbers which will be the length of each column of slime on the screen. **a$** holds the three graphics which make up the tip of a slime column, and **a** holds your position on the screen, which starts at 10, one third of the way along. Remember to enter underlined letters in graphics mode!

```
8 LET co1=400
9 LET co=0: LET sm=1
10 CLS : DIM d(31)
21 LET a$="ABC"
22 LET a=10
```

Lines 23 to 26 Line 23 prints two rows of black squares at the top of the cavern, and lines 24 and 25 put the hi-score details on the screen.
Line 26 then throws a border of brickwork — graphics symbol E — around the whole lot.

```
23 FOR f=1 TO 31: LET d(f)=2:
BEEP .01,f: PRINT AT 1,f;"(ig8)"
;AT 2,f;"(ig8)": NEXT f
24 PRINT #1;AT 0,20;"HIGH:0000
00";AT 0,31-LEN STR$ hi;hi
25 PRINT #1;AT 1,0;"HIGH SCORE
IS BY -";h$
26 PAPER 2: INK 6: PRINT AT 0,
0;"(32*E)": FOR f=0 TO 17: PRINT
AT f,0;"E";AT f,31;"E": NEXT f:
PRINT AT 21,0;"(32*E)": PAPER 0
: INK 4
```

Lines 30 to 40 These lines choose a column of slime at random and then inspect the appropriate number in array **d** to see how long it is. Be careful of the letter 'l's and numeral '1's — the former have a flat top and the latter a pointed top.
Having selected a column, line 30 checks to see if it has reached the bottom of the screen in which case the game is over — GOTO 300. If not, the length is increased by two and one of the column tip graphics is printed at the end.

```
30 LET l=INT (RND*30)+1: IF d(
l)>=19 THEN GO TO 300
31 LET n=(RND*2)+1
40: PRINT AT d(l)+1,l;"(ig8)";
AT d(l)+2,l;a$(n): LET d(l)=d(l)
+1
```

Lines 45 to 50 Your move is now made. Logic operations are used to check which key you have pressed — regular readers should now be familiar with these. Lines 46 and 47 deal with the edge of the screen and give a wraparound effect if you move off one side. Line 50 then prints spaces over your old position and the graphics for your hoverbot in the new position.

```
45 LET a=a+(INKEY$="p")-(INKEY
$="o")
46 IF a<1 THEN PRINT AT 19,1;
"(sp)";AT 20,1;"(sp)": LET a=30
47 IF a>30 THEN PRINT AT 19,3
0;"(sp)";AT 20,30;"(sp)": LET a=
1
50 PRINT AT 19,a-1; INK 6;"(sp
)F(sp)";AT 20,a-1;"(sp)G(sp)"
```

► 102

HALLS OF SLIME

Lines 55 to 100 Line 55 checks to see if you have fired and if so sends the program to the routine at 200. Line 60 increases the time you have taken, **co**, by one and then subtracts that from the time limit and prints it on the screen.

Line 70 checks to see if you have survived the time limit and if so increases the limit, your score, and sends you back to line 9 for a new screen. Line 80 checks to see if you have fired the hyperbomb. If so, **sm** is set to zero and you go to line 10 for a new screen, without affecting time taken and hyperbomb.

Line 100 sends you back to line 30 to continue the game if you haven't been killed or completed a screen in some way.

101 ◄

```
  55 IF d(a)>1 THEN  IF INKEY$="
q" THEN  GO SUB 200
  60 LET co=co+1: PRINT #1;AT 1,
25;co1-co;"(sp)"
  70 IF co>co1 THEN  LET co1=co1
+100: LET s=s+co: PRINT #1;AT 0,
0;"SCORE:";s: BEEP 1,20: GO TO 9
  80 IF INKEY$="0" AND sm=1 THEN
  LET sm=0: GO TO 10
 100 GO TO 30
```

Lines 200 to 210 This is the fire routine. The missile, graphics D, is printed all the way up the screen until it reaches the slime, with a space printed in its previous position each time so as not to leave a trail. When it hits the slime that retreats by one square. Since it increases by two squares when chosen, you can never beat it all back, but must try to stop any one column getting too far.

Line 205 makes sure the slime doesn't retreat past its starting point, and lines 207 and 208 adjust and print the score. The longer the slime column the higher the score. Line 210 sends it back to the main program.

```
 200 BEEP .01,30: FOR f=17 TO d(
a)+2 STEP -1: PRINT AT f,a;"D";A
T f+1,a;"(sp)": NEXT f: LET d(a)
=d(a)-1: PRINT AT d(a)+2,a;"A";A
T f+1,a;"(sp)"
 205 IF d(a)<2 THEN  LET d(a)=2:
 GO TO 210
 206 BEEP .01,10
 207 LET s=s+d(a)
 208 PRINT #1;AT 0,0;"SCORE:";s
 210 RETURN
```

Lines 300 to 303 end the game and update the hi-score table if necessary.

```
 300 PRINT  PAPER 2; INK 6; FLAS
H 1;AT 11,12;"GAME OVER": BEEP .
5,10: BEEP .3,5: BEEP .4,5
 302 IF s>hi THEN  LET hi=s: FOR
 f=1 TO 10: FOR g=1 TO 7: BORDER
 g: BEEP .01,f: NEXT g: NEXT f:
INPUT AT 21,0;"A new high score
! Enter name   >"; LINE h$: GO T
O 6
 303 PAUSE 0: GO TO 6
```

Lines 500 to 520 print out the instructions.

```
 500 PRINT AT 2,11;"SLOP-SLAP";A
T 5,0;" Trapped in side the cryp
ts of  doom, you a meagre Mk1 ho
verbot must prevent the slop-sla
p acid slime from reaching the g
round, where it will dissolve yo
ur     vectaglide system, and tu
rn you to quicksilva."
 510 PRINT '"Luckily, you have y
our missile  firing head fitted,
 and a singlehyper bomb to help
you !"''"O Left   P Right   Q Fi
re"''"0 HYPER BOMB"
 520 PRINT '"Press a key...": PA
USE 0: CLS : RETURN
```

Lines 1000 to 1100 This pokes in the data for the user-defined graphics. For some reason Woody has used a mixture of decimal and BIN numbers for the data. This does however allow you to see the shape of the hoverbot, given by the ones in the BIN numbers from line 1060 to 1075.

```
1000 FOR f=USR "A" TO USR "G"+7:
 READ b: POKE f,b: NEXT f
1010 DATA 255,255,255,255,126,12
2,122,60
1020 DATA 255,255,255,BIN 111011
11,BIN 00000110,0,0,0
1030 DATA 255,255,126,126,60,60,
60,BIN 00011000
1040 DATA 16,56,16,16,16,16,56,4
0
1050 DATA 1,1,1,255,16,16,16,255
1060 DATA BIN 00100100
1061 DATA BIN 01100110
1062 DATA BIN 11111111
1063 DATA BIN 11111111
1064 DATA BIN 11111111
1065 DATA BIN 01111110
1066 DATA BIN 00011000
1067 DATA BIN 00111100
1068 DATA BIN 01111110
1069 DATA BIN 11011011
1070 DATA BIN 10111101
1071 DATA BIN 01111110
1072 DATA BIN 01111110
1073 DATA BIN 10111101
1074 DATA BIN 11000011
1075 DATA BIN 11000011
1100 RETURN
```

Line 9999 is irrelevant to the program itself. If you want to save the game so that it automatically runs when loaded, type GOTO 9999 when you have finished entering the listing.

```
9999 CLEAR : SAVE "SLAP-SLOP" LI
NE 1
```

Enigma Force

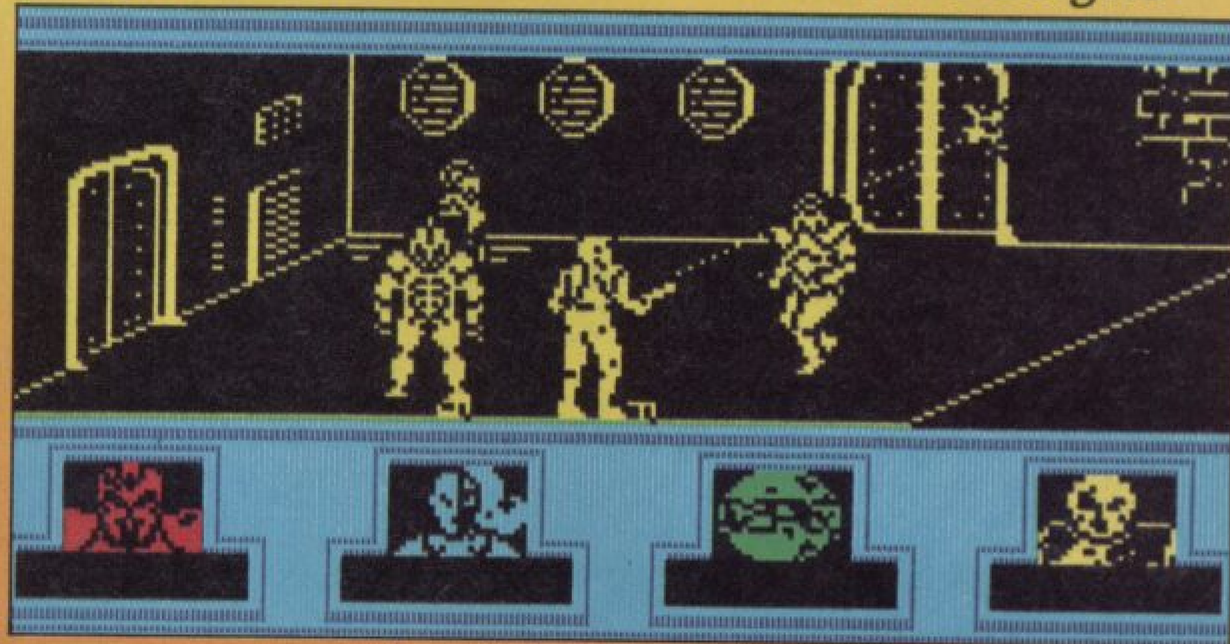
Zoff's back again and the galaxy stands on the brink of disaster. John Gilbert discusses Enigmateam tactics with Denton Designs

ENIGMATEAM is expendable. They allowed General Zoff, dictator of the Cosmos, to escape while he was being transported to the Emperor for final sentence. Their craft was brought down by the General's Psi power and now they must find him in the corridors of the city complex under team member Syylk's home world.

Destructor tugs are on the way. If you fail to capture Zoff the planet will be destroyed along with the Enigmateam and its inhabitants — the Reptiloids and Insectoids. Those races are at war and alliances must be formed before the General can be captured. Zoff will exploit the hatred of the lizards for the insects, and the Enigmateam must find a way of getting the insects onto their side.

"Zoff is basically a coward and needs an army to do his fighting for him," comments John Heap, the Denton Design programmer who was largely reponsible for the Spectrum version of **Enigma Force**. "You won't find him taking part in a fight, he just runs away."

Zoff is quick to make his alliance with the reptiles, but for Zark and his cohorts getting to know the Insectoids is not an easy task. For one thing the group does not know whether the insects will listen to their pleas for help, or just regard them as enemy agents who they must crush with their magenta mandibles.



Insectoids fight reptiloid allies of Zoff

John thinks the solution to the problem is very logical. "As Syylk is a member of the insect race, he is the one who must look for the insect queen. She's the leader of her race and their meeting is the first major turning point in the game. Without an agreement between her and Syylk the team will be shot at by both reptiloids and insectoids."

To make the pact you should take all the team members into the room to the right of the crash site. This is a safe room off the path of insect and reptile patrols. You should then take Syylk back into the crash room, through the doors on the left and through the doors at the top of that screen. At one of those locations you will find a key. Pick it up and find a locked door only a few rooms away.

To use the key activate it and bump against the door you want to unlock. The door will slide open and you can enter.

Once through the door you are into Insectoid territory and if you hang around the queen will find you. "That's not advisable though," says John. "Reptiloids are always on the prowl and if you're not quick they'll get you."

Once you've met the queen — and believe me it's a quick meeting with only a brief news flash on the screen to show that it's happened — you can start playing the game properly. "When you've found the queen the insects will stop attacking and you'll have free run of their armoury."

The armoury includes laser weapons and bombs. Syylk should take all the weapons available in that room and bring them back to the group. According to John Heap there is an inexhaustible supply of laser pods and bombs so you can make several trips to the armoury when your ammo runs ▶ 104

WANTED!

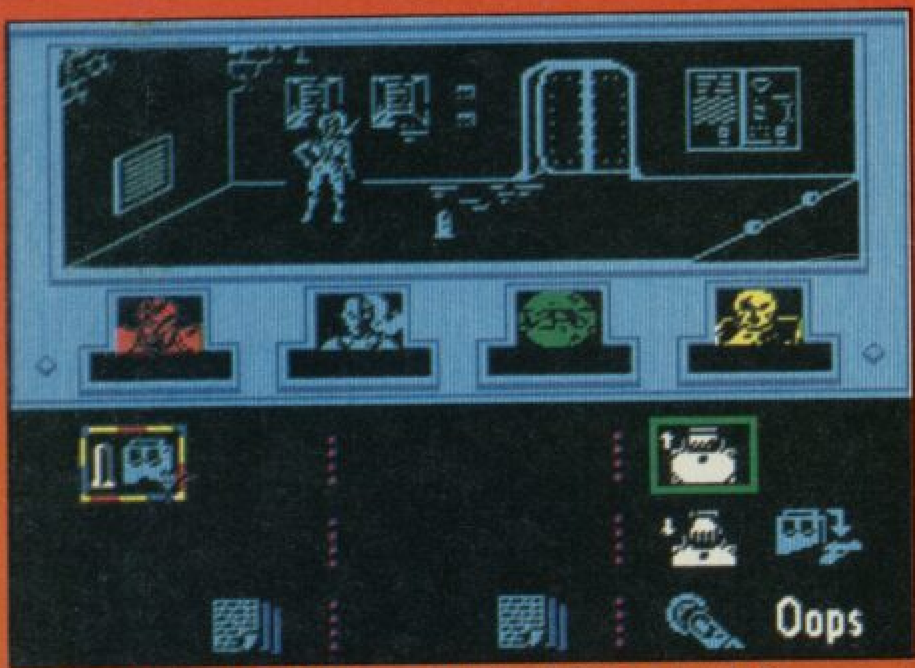


GENERAL Malthadius Zoff, self-styled dictator of the Cosmos. Last seen escaping from the Enigmacraft on his way to the only escape pod on the planet. The Empire will reward Enigmateam if Zoff is recaptured. Failure to do so means death.



The Safe Room, just one door way from crash site. Enigmateam can relax here without disturbance





Sevrina Maris, Mistress of Mayhem, finds a round of ammunition. One bullet may be for Zoff

103 ◄ low. Syylk has one of the highest staminas of the group so he is able to carry heavy loads as long as he's not involved in combat.

If he does becomed involved with the reptiles on his way back to the group, use the mind probe which will transfer his control to your joystick. You can then move him out of the danger location with only a few hits from the reptile.

John Heap pours scorn on players who use mind probe all the time. "Once you know the map it's much easier to use the icons and make characters do several things one after the other. With mind probe you can't have all four characters moving around, performing different tasks."

Mind probe is a help in the early phase of the game when you're getting used to the layout of the city. Mapping is important so you can leave the rest of the group in the safe room by the crash sight and take the robot Maul to explore the 64 rooms.

The city hides many objects behind its doors, the most important of which is the toolkit. It is ideally suited for picking locks and one character in particular can use it. "Sevrina may have been the last of the Enigmateam characters to be created but she's the most important when you're exploring the maze. Once she has the toolkit she can open all but one of the doors in the complex. That's why it's not such a good idea to get her killed too early in the game."

Maul can also pick up ammo while he's on patrol but it's not advisable for him to keep it. "Maul's got his own lasers and he can stand any amount of reptile fire because of his armour. You're wasting ammo if you get Maul to pick it up."

General Zoff is initially located in a random room within the maze and can be used as a hostage against the reptiles if you capture him. When you find him a message will flash up telling you he's in the room. You'll then have to chase him — a good time to be in mind probe mode.

There are two ways to capture Zoff. The first requires an in-depth knowledge of the city map and is best accomplished with Syylk or Zark. Don't use Maul as he's too slow and will lose the General.

Once you have found Zoff, locate a room in the maze with only one door. You can then push Zoff towards that room following him, using your knowledge of the map. He will go for the nearest unblocked exit so you can force him to move in the right direction by standing in front of the other exits as he tries to run for them.

The other method of capture cannot be accomplished using mind probe and will only work if you have all four members of **Enigma Force** acting as a team. Syylk should locate Zoff, then the other members of the team should block off the exits. He will then surrender.

Once you've captured the General you should keep him alive at all costs and go in search of the escape ship. By now time will be running out and if you want to see just how long you've got have a look at the status report which shows casualties for lizards and insects. If the total for either is more than 600 you're in trouble.

Denton wanted a way of timing the game to end without using an obvious clock. "We wanted something which would announce the end of the game with the destruction of the planet," Heap explains. "Some people think the casualty figures for the insects and reptiles are random numbers, they're not. You may not see



The crash site. Enigmacraft lies stranded

The Enigmateam



Zark Montor. *Leader of the team and a cyborg who is tough and resourceful. Horrific battle injuries, some of which were caused by General Zoff in the* **Shadowfire** *mission, have destroyed his body — most of which is now made up of plastoid organs. He will do anything to capture Zoff, even to the extent of sacrificing members of his crew. He is an expert with laser weapons and bombs.*



Maul. A combat weapons droid who hovers above the floor. Two laser guns make him one of the most difficult characters to kill. He can be used as a lookout and as a block against reptiloid forces if a tactical withdrawal is required.





A battle in the insectoid recharging centre where insects are re-animated after death

the battles between the two races but they're happening within the computer and the results are put on the status screen. "The computer picks a random number between 600 and 800 and when the casualties for one of the races hits that figure the destructor tugs arrive and the planet's blown to bits."

The next task is to find the ship — Zoff is never far from its location. It's behind a locked door but Sevrina with her wonder toolkit will not be much use this time. Zoff has the key and he is your prisoner but he won't give it up easily. He would rather die.

Once you've got past the locked door the ship is yours but, as John Heap explains, it's probably the only thing in the game with a conscience. "The ship has a drive which won't take off until every surviving member of the Enigmateam is on board. That means it's not a good idea to take group members off in different directions. . . but it's not quite as simple as that."

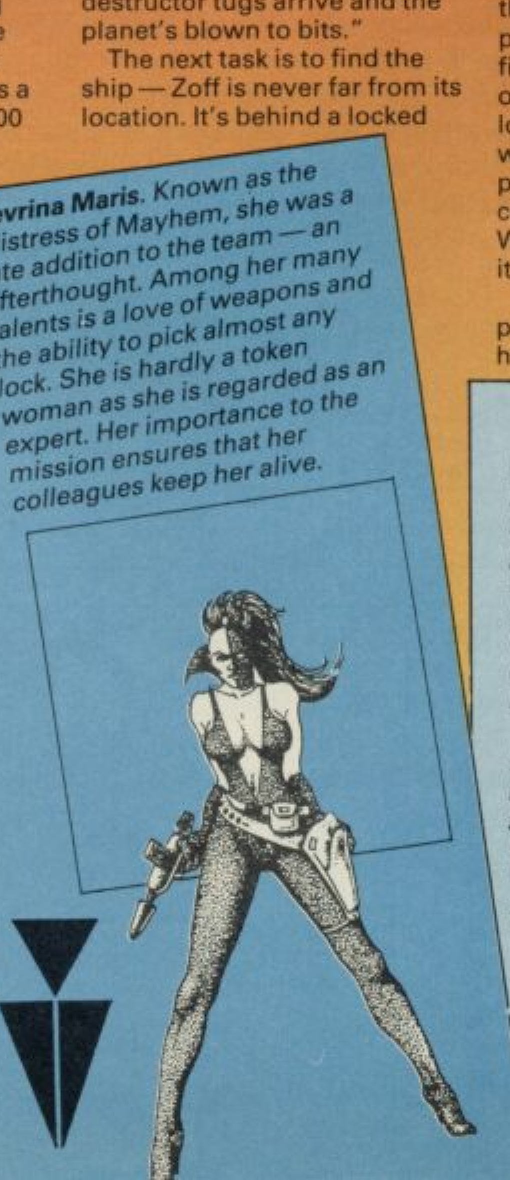
The whole game isn't as simple as that. As Heap says, everything may appear random but it has been plotted down to the finest detail. "There are pages of rules defining how fights occur, who carries what object and where characters are located. We could tell you what's going to happen in a particular situation but it's so complex that we've never tried. We let the computer take care of it."

It's nice to know that programmers like John Heap have control over their programs.

Syylk. Second in command and a member of the insectoid race which inhabits the planet. He has a pathological hatred of Zoff because of the General's attempts to enslave his home world. His high stamina makes him a natural long distance traveller.



Sevrina Maris. Known as the Mistress of Mayhem, she was a late addition to the team — an afterthought. Among her many talents is a love of weapons and the ability to pick almost any lock. She is hardly a token woman as she is regarded as an expert. Her importance to the mission ensures that her colleagues keep her alive.





INSECTOIDS

THE RACE which spawned team member,Syylk and which represent the 'good' interests on his home planet. They are a tight bunch and their society is structured around a queen who looks after the regeneration of forces and commands the insect guards and soldiers.

REPTILOIDS

CHAOTIC forces who only take orders from their commanders.

Their society is structured around individualism although they will stick together in a fight.



About the programmers

DENTON DESIGNS was formed in 1985 by a group of disenchanted Imagine programmers. The company included programmers John Heap, John Gibson, and Dave Colclough with graphic designers Steve Cain, Ally Noble and Karen Davis.

John Heap, head of the Spectrum** Enigma Force **programming team, had just joined Imagine when the company folded. He recalls "I was promised my own car and got a Sage — computer — to work with".

Denton bought Imagine's Sages, wrote their own graphics and programming utilties, and started work on projects such as** Frankie Goes to Hollywood, **for Ocean and** Shadowfire, **for Beyond.

Since the launch of** Enigma Force **at Christmas, Denton has split up. Steve Cain, John Gibson, Ian Weatherburn and Karen Davies have opened an agency for programmers while the second generation of Denton programmers, including John Heap and Dave Colclough, have reformed the company. Heap confirms "The split was amicable and we will continue to do contract work."

Denton's books are full. They are currently working on two projects for Beyond and two for Ocean. Those will be available before the end of the year.

A Fairy Story

"We're pretty reliable you know"

A funny thing happened to Andrew Hewson last autumn. Are you sitting comfortably? Then he'll begin . . .

IN BETWEEN my monthly bouts of answering Helpline queries for Sinclair users I crack the whip over a team of programmers, sales and production staff based in Oxfordshire.

We've been at it for five years and more, and in the autumn of last year our activities at last came to the attention of another team of specialists, based in the flatlands of Cambridge, who apart from building the odd computer, occasionally experimented with watches, televisions, calculators, not to mention a mobile bath-tub.

The Cambridge lot, having discovered the hard way that designing fun products is not a comfortable way to make a living, put a new version of their staggeringly successful computer on the market. They chose to do so in Spain, for reasons which make a lot of sense to bank managers, creditors and men in dark suits, but which don't make much sense to you and me.

My Oxfordshire team watched the happening with interest, and we even got hold of one of the devices to give it a good going over. It had a few extra knobs and whistles but was nothing earth-shattering. We could easily work on it if — and when — it arrived in the UK.

And then came the phone call. . .

Ring-ring. . . ring-ring.

"Hello Oxford, this is Cambridge. Look, this is awfully important and secret but can you come and see us?"

Ho-hum, I think, what are they after?

"Sorry, terribly hush-hush old bean. Thing is, we know you're a bright lot, and this idea we've got is going to be just right for you. We've done all the really hard work, we just need you to do the easy bit. You'll make lots of money too."

I've been in the business long enough to know that when somebody is offering to do the hard bit and offering me money into the bargain, then something fishy is going on. When they start telling me how awfully clever we are etc I get nervous as well. Usually it means they think we're a bit slow on the uptake. Usually it means that we do the hard bit while they do the easy bit. Usually it's them who gets the money too.

"Well, I'm not sure," I reply decisively. "Tell you what, old chap, we'll send an official car to fetch you."

Next day, my heart thumping in anticipation, I stow my sandwiches and thermos flask in the C5's dear little boot, don plastic mac, goggles and ear-muffs and climb aboard.

Three days later I arrive, ► 108



A Fairy Story

107 ◄ tired but triumphant. The journey powered by the C5's surging motor and my own tireless legs has been smooth and uneventful save for an interesting encounter with a landlady in Bicester, who misunderstood my reference to joysticks. The C5 draws to a rest outside the shed at the bottom of Uncle Clive's garden. A burly commissionaire steps smartly forward.

I gaze around the estate. In the distance the dim outline of a mansion shimmers in the mist. Closer at hand I note that the cabbages are beginning to show and that the late potatoes are being lifted.

I step into the hallowed sanctum of the famous shed. Here the balding genius creates his wonder products with a loyal team of workaholics, assorted men of vision and a cat named Biggles — towering intellects every one of them. I am careful to put the padlock back on the latch as I tug the door shut.

"Good afternoon, Sinclair. Ringing for you. Good afternoon, Sinclair. Sorry can you hold. 256 ringing for you. Good afternoon, Sinclair. Putting you through now. Good afternoon, Sinclair. Yes and the same to you. Good afternoon, Sinclair. No, not in your ear, in the EAR socket at the back. Good afternoon, Sinclair."

The receptionist, all legs and hairdo, talks to a pencil. She is wearing earmuffs and filing her nails. She mouths at me. I gesture incomprehension. She mouths again. I blow her a kiss. Her response is frosty.

"You're through. Good afternoon, Sinclair. One moment please. What do you want? Good afternoon, Sinclair. Ringing for you. WHAT DO YOU WANT?"

> **"What would you have done if I'd told the world?" I ask.**
> **"We'd have said that you were off your rocker. They'd have believed us. We're pretty reliable, you know."**

I infer from the volume that this last is addressed to me. She looks displeased. I explain my business.

"Good afternoon, Sinclair. Go ahead. Hello. Here's another of those dozies to see you. This one's deaf. Good afternoon, Sinclair. Can I help you. No there isn't a left-hand drive version. Good afternoon, Sinclair. Ringing for you. HE'S COMING. SIT DOWN. Good afternoon, Sinclair. Yes, we haven't."

I look for a chair. The hairdo gestures at a line of bath-tubs against one wall. I perch on one nervously.

An inner door thumps open. Cambridge looms into view, striding briskly. He leads the way into an ante-room. A table, two chairs, proper ones this time. One wall is lined with Sinclair products like a Woolworth clearance sale. We sit down.

"Right, can you sign this, then I can talk to you," says Cambridge. He waves a piece of paper at me.

"Why?"

"Sorry, I can't tell you until you've signed."

"Can't tell me what?"

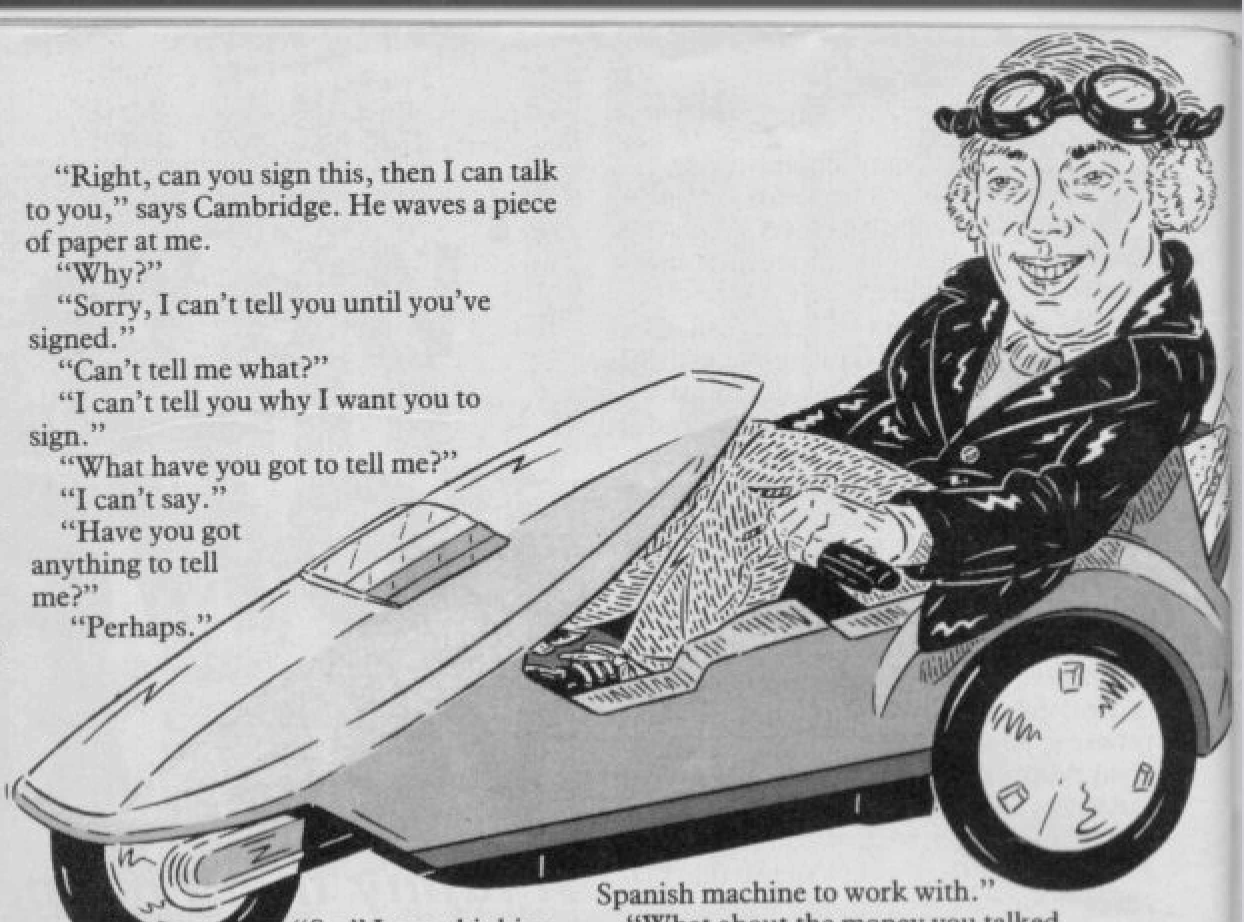
"I can't tell you why I want you to sign."

"What have you got to tell me?"

"I can't say."

"Have you got anything to tell me?"

"Perhaps."



"So," I say, thinking slowly, "it might be that I sign your bit of paper and then you say to me that you haven't got anything to say after all."

"Yes, it could be," says Cambridge cheerfully. "But there again," he says, leaning forward, "it's a pretty safe bet, isn't it, that I've got something to tell you? You wouldn't be brought all this way for nothing by a company like ours, would you? We're pretty reliable, you know."

I try very hard to look persuaded by this particular piece of intelligence because I don't want to hurt his feelings.

He looks like I've hurt his feelings. "Well look, just between you and me, old boy, fact is I have got something to tell you, so you can go ahead and sign."

I raise my eyebrows and scan his piece of paper. It reads:

Cambridge might have something to say to Oxfordshire and if he did then Oxfordshire mustn't tell anyone else unless that someone else already knows about it. If that someone else doesn't already know then Oxfordshire must pay lots of money to Cambridge and say sorry. In any case Cambridge might not have anything to say after all.

I read the agreement twice, trying to look as though I understand it. "Go on," prompts Cambridge, "I really am going to tell you something."

I sign. He grins. "We're going to sell the new Spanish computer in the UK."

"When? How much? What are you going to call it?"

"I can't tell you."

"When can you tell me?"

"I can't tell you."

I sit back and fold my arms. Cambridge leans forward again.

"Why don't you ask me a question I can answer?" he suggests helpfully.

I begin to piece the story together. The new computer is just very much based on the Spanish machine that we've already seen, without the keypad. Nothing revolutionary but progress nonetheless.

"Right-ho," says Cambridge, "If you extend one of your games specially to run on the new machines we'll advertise it on a piece of paper we're giving out with the computer. What's more we'll give you a Spanish machine to work with."

"What about the money you talked about on the phone?"

"You'll make that from selling your new game. All you've got to do is write the new program."

"Is that the easy bit you talked about?"

"That's right," he says, "you've got it. And we do the hard bit with the advertising and so on."

"Have you any idea?" I ask, leaning across the table belligerently, "have you any idea how difficult it is to write a good game?"

"Yes, absolutely. Jolly difficult I'm sure. But you chaps are awfully bright and clever. Not like us lot. We're not nearly as clever as you so we get to do the hard bit, like the advertising."

I can see that we're not going to agree so I try a new tack.

"Suppose you don't bring out the machine. What then?"

"It's not likely, is it? I mean we have to earn our living. Anyway, we wouldn't bother with all this if we weren't going to. After all, we're pretty reliable, you know."

The conversation is beginning to take on a familiar ring.

"OK, I'll think about it. Can I have a machine to play with in the meantime?"

"No can do. You've got to sign to say you're going to do something for us before I can let you have it. Made your mind up?"

"Yes," I say, "I'm going to go away and think about it."

"Right-ho," he says.

We move back to the reception area. Cambridge takes the padlock and shoves the shed door open. The autumn sunlight makes us both squint as he escorts me to the official car. The commissionaire has kindly refilled my thermos.

I climb aboard. "Tell me," I ask Cambridge thoughtfully, "what would you have done if I hadn't signed your piece of paper and then told the world that you'd got something you wanted to tell me?"

"Ahha," he says, "we thought of that one. We'd have said that you were off your rocker. They'd have believed us. We're pretty reliable, you know."

I press the starter button on the C5. The motor coughs, whirrs and, after a short pause, comes to life.

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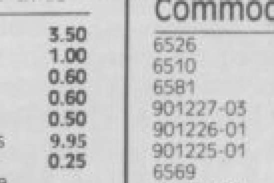
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ADVERTISEMENT INDEX

Next month is our **50th** issue.

What will we do to mark this great event?

Sack the editor? Maybe.

Slag off lots of important software companies for producing rubbish? Possibly.

Write massive detailed reviews of all the best games like . . .

The Force — if Argus sends us a copy.
Heavy on the Magick — If Gargoyle finishes it in time.
Goonies — If US Gold has started it yet.
Street Hawk — you've got to be kidding.

We'll do our best.

What about a 37-page guide to boring old word processors? Just try and stop us.

So as Gordo loosens his belt in preparation for the feast and Chris 'Lunchbreaks' Bourne puts in a massive advance order for Vodka, make sure you join in the party.

It starts on April 17 and if you don't buy a copy you'll never know what you missed.



Gremlin

NERVOUS TIMES, it seems. Gremlin was not invited to the launch of the **Spectrum 128,** and after hearing what happened Gremlin knows why. But if **Sir Clive** reckons he can avoid the column so easily he's wrong.

Clive's big hand

Imagine, if you will, the holiday snapshot-style slide show **Sinclair** puts on for its launches. Hacks sit breathless as the screen shows a gigantic eight foot metal-rimmed hole. "Here is the TV slot" intones some Sinclair flunkey. Gruesome stuff.

This time, however, proceedings were enlivened by a soundtrack which opened with stirring martial music.

It dissolved into storms of canned applause, while the assembled hacks dissolved into gales of laughter . . .

Spanish practices

Ice hockey fan **Jason** of **Friday 13th** fame may not be setting you alight in Britain. But the pixellated pervert seems to appeal to Spaniards, according to **Domark's** chief horror, **Dominic Wheatley**.

Dominic regales Gremlin with a tale of how his Spanish distributor, one **Jose,** was over in London explaining why.

"I saw a review in *Zzap 64*", said Jose, "which is not a good review. We won't make the same mistake in Spain. We pay the man, we get a good review. We don't get a good review, we break his legs."

Gremlin would like to inform Jose and any like-minded Spanish distributors that his legs were broken long ago, and now resemble rubbery tentacles with no crunchy bits left at all . . .

Boring exclusive

Yawn Computing is up to its old tricks again with yet another so-called exclusive on the **Spectrum 128**. This makes life tough for us in the office as **Chris** 'Lunchbreaks' **Bourne** works himself into another drunken fury and threatens to ram unopened cans of baked beans down *Yawn* editor **Gary Evans'** throat.

Gary, please stop now. Before it's too late . . .

Tropical diseases

Remember **Pong?** It was the very first video game, in which a ball wobbled lazily back and forth across the screen while suckers like **Edgeley** tried to hit it with a bat while offloading the rent money into the machine at the same time.

The peculiar guy who invented Pong was **Nolan Bushnell,** an obscure Californian who went on to found **Atari**. Which must prove something.

Anyway, Nolan's back in town after a long rest by the pool with his latest creation, the **Petsters**. These are electronic cuddly toys which speak to you in strange buzzing noises.

One of the toys is a cuddly mosquito, which seems odd. Does it give you malaria? Well, it's nice to think there are still enough software distributors around to create a reasonable market for the bloodsucking little insect . . .

Gratuitous sex

Last month Gremlin got steamed up about smutty computer games. So far the response has been a little disappointing — November 1983 is as far back as we've got.

J R Beavis has a nerve putting forward **Robin of Sherlock** as a candidate, considering it was only released three months ago. OK, so Maid Marian's chastity belt can be unlocked if you know how, but it's obvious Beavis has never had an illicit relationship with Legoland in **Bored of the Rings**.

And what about the android in the early version of Artic's **Ship of Doom**? Come on guys, you can do better than this . . .

Potty training

There are charts, damned charts, and **CDS** press releases, as **Disraeli** once said. So it's not surprising CDS wins the **Brazen Backslapper of the Month Award** for its latest piece of flummery.

The company which brought you **Steve Davis Snooker** and **Colossus 4 Chess** claims to be the 'sixth software house' ahead of 'both **Firebird** and **Ultimate'**. This remarkable claim is based on a list of the top suppliers to distributor **Websters** for the previous year.

Websters must have bought an incredible quantity of CDS software over the period, and one wonders what happened to it all. The press release suggests phoning CDS agent **Dave Carlos,** and promises those who do will learn about life north of Watford and be in at the start of something big. There are however limits to what journalists can reasonably be expected to do, and this is one of them.

STOP PRESS: Websters no longer distributes software.

Love for sale

Gremlin got no valentines at all this year, which is hardly surprising. **Domark,** on the other hand, decided to make a few bob out of romance and offered to shove **Valentine Estate Agents** signs in your loved one's front garden for 40 quid.

Things started to go wrong when the bloke with the signs failed to turn up on time for an **ITN** interview. Further disasters followed, with **Dominic Wheatley** re-positioning signs which went to the wrong address in the middle of the night.

"My wife didn't get hers, and neither did **Bill Scolding"**, wails Dominic. Other customers included **Clement** 'sex symbol' **Chambers** of **CRL**, who ordered two. Gremlin is pretty sure the first was for himself, but who can the second one be for? Certainly not the programmers of **iD,** which is now being rewritten because the first version was so awful . . .



Argus employees try to promote their new police game *The Force* by arresting the Sales Manager. This is called zapping yourself in the foot, at which Argus is a universally-acclaimed expert.



If Virgin Games' Nick Alexander thinks he can get into Gremlin just by wearing a silly hat and holding a vacuum cleaner he's dead right.

Scolding at bay

Quite a few fanzines seem to be coming through the post, and the competition seems to be worrying **Bill** 'incorruptible' **Scolding.**

Gremlin, however, rather enjoys these murky corners of the publishing world. So, it appears, does **Design Design,** which seems to have two concurrent interviews, one in *The Bug,* and the other in *Interface,* in which **Simon** 'toadface' **Bratell** explains how all **EMAP** magazines are biased in favour of **Beyond.**

For the record, Simon, we were biased in favour of Beyond before we joined EMAP, continued to adore Beyond while it was part of EMAP, and now **British Telecom** is in charge we'll probably loathe everything it brings out, especially **Scooby** nominee **Superman.**

Incorruptible Scolding would also like to point out that he's never received a free dinner or crate of wine from Beyond. Is this a record . . . ?

Thorny problem

Finally, a series of questions to which Gremlin will probably never discover the true answers.

Who sent our very own **Norisah** 'indispensable' **Fenn** a single perfect red rose for Valentine's Day?

Why is her typing so much better these days?

What has suddenly made ad manager **Louise** 'WPC' **Fanthorpe** so jealous?

Gremlins reckons **David White** of **Saga Systems** has a hell of a lot to answer for . . .



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